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The  
University of Minnesota  
Bulletin

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College of Education

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1909-1910



Volume XII

July 10, 1909

No. 14

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Entered at the Post Office  
in Minneapolis as second-class matter  
MINNEAPOLIS, MINN.

The University catalogues are published by authority of the Board of Regents, as a regular series of bulletins. One bulletin for each college is published every year and in addition a bulletin of general information outlining the entrance requirements of all colleges of the University, and embodying such items as University equipment, organizations and publications, expenses of students, loan and trust funds, scholarships, prizes, etc. Bulletins will be sent gratuitously, postage paid, to all persons who apply for them. In calling for bulletins, the college or school of the University concerning which information is desired should be stated. Address,

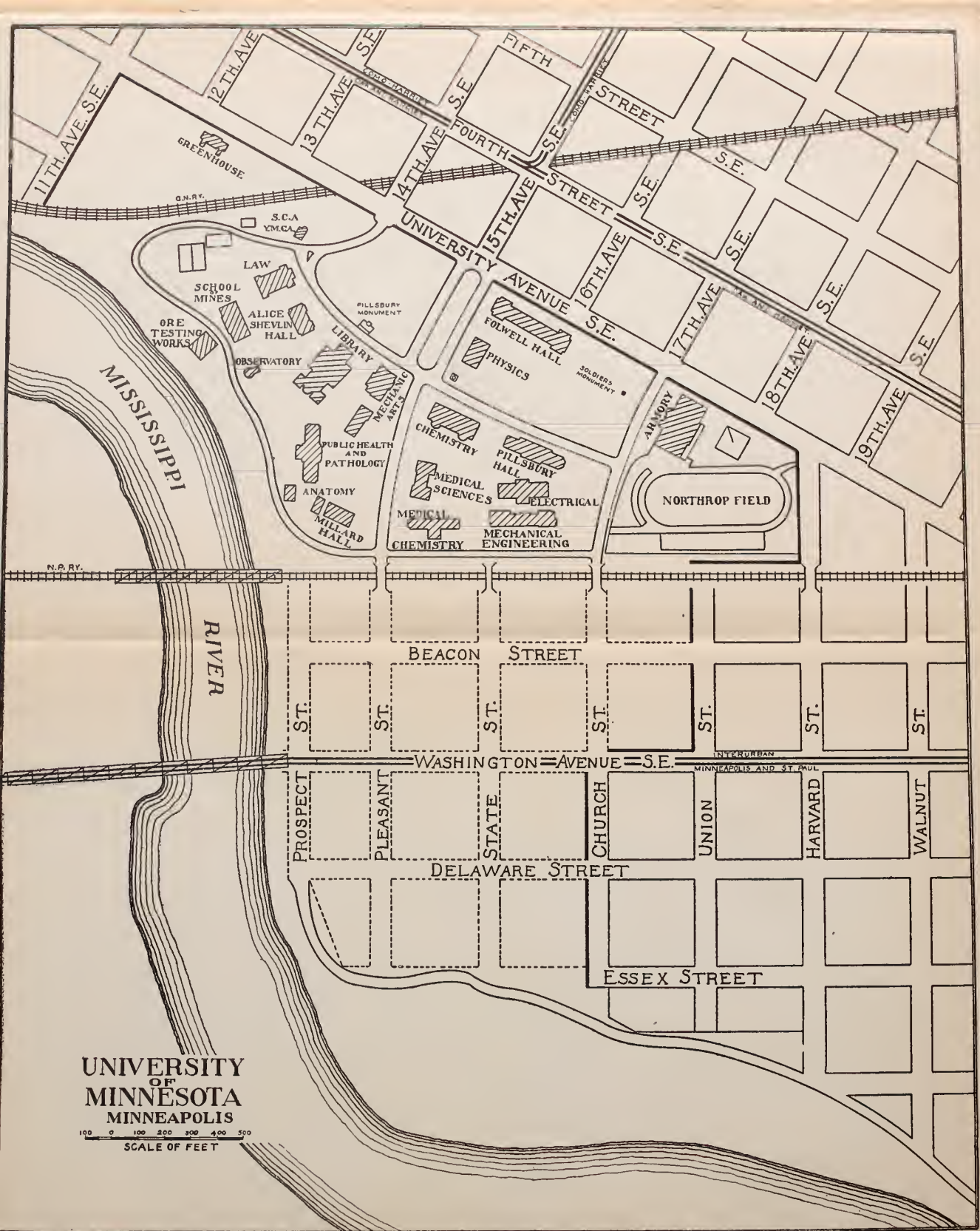
THE REGISTRAR,

The University of Minnesota,

Minneapolis, Minnesota







UNIVERSITY  
OF  
MINNESOTA  
MINNEAPOLIS

100 0 100 200 300 400 500  
SCALE OF FEET

# CALENDAR FOR 1909-1910

1909

1910

## JULY

S.	M.	T.	W.	T.	F.	S.
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4	5	6	7	8	9	10
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## JUNE

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# University Calendar

1909-1910

## THE UNIVERSITY YEAR

The University year covers a period of thirty-eight weeks beginning on the second Tuesday in September. Commencement day is always the second Thursday in June.

1909

Sept. 7	Tuesday	Registration begins
Sept. 7-12	Week	Entrance examinations, condition examinations, registration
Sept. 14	Tuesday	First semester begins
Oct. 4	Monday	University Council meeting
Oct. 4	Monday	School of Agriculture session begins
Oct. 7	Thursday	Board of Regents meeting
Nov. 25	Thursday	Thanksgiving Day, recess three days
Dec. 6	Monday	University Council meeting
Dec. 14	Tuesday	Board of Regents meeting
Dec. 18	Friday	Holiday recess begins 5:40 P. M.

1910

Jan. 4	Tuesday	Holiday recess ends 8:30 A. M.
Jan. 22	Saturday	Semester examinations begin
Jan. 29	Saturday	Semester examinations close
Jan. 31	Monday	Registration for second semester closes
Feb. 1	Tuesday	Second semester begins
Feb. 12	Saturday	Lincoln's birthday, holiday
Feb. 22	Tuesday	Washington's birthday, holiday
March 19	Saturday	Easter recess of one week, begins 5:40 P. M.
April 4	Monday	University Council meeting
May 5	Thursday	Board of Regents meeting
May 30	Monday	Decoration Day, holiday
May 31	Tuesday	Semester examinations begin
June 4	Saturday	Semester examinations close
June 5	Sunday	Baccalaureate service
June 6	Monday	University Council meeting
June 6	Monday	Senior class exercises
June 7	Tuesday	Phi Beta Kappa address 8:00 P. M.
June 7	Tuesday	Senior Promenade 9:00 P. M.
June 8	Wednesday	Alumni Day
June 8	Wednesday	Board of Regents meeting
June 9	Thursday	Thirty-eighth annual commencement
June 10	Friday	Summer vacation begins

The School Year for 1910-11 will begin Tuesday, September 13

# PROGRAM OF ENTRANCE EXAMINATIONS

1909-10

Sept. 7	Tuesday	9 A. M.	Astronomy Botany Geology Chemistry Physiography Zoology
		2 P. M.	American Government History Political Economy Physics
Sept. 8	Wednesday	9 A. M.	English
		2 P. M.	German French Latin Scandinavian
Sept. 9	Thursday	9 A. M.	Elementary Algebra Commercial Geography
		2 P. M.	Higher Algebra
Sept. 10	Friday	9 A. M.	Plane Geometry
		2 P. M.	Solid Geometry

All candidates for examinations should report at the scheduled time in Room 13 Library Building.

The School Year for 1910-11 will begin Tuesday September 13



# The University

THE UNIVERSITY OF MINNESOTA comprises the following named schools, colleges and departments:

THE COLLEGE OF SCIENCE, LITERATURE AND THE ARTS

THE COLLEGE OF ENGINEERING AND THE MECHANIC ARTS

THE DEPARTMENT OF AGRICULTURE, including—

THE COLLEGE OF AGRICULTURE

THE SCHOOL OF AGRICULTURE

THE DAIRY SCHOOL

THE SHORT COURSE FOR FARMERS

THE SHORE COURSE FOR TEACHERS

THE SCHOOL OF TRACTION ENGINEERING

THE FORESTRY SCHOOL

THE CROOKSTON SCHOOL OF AGRICULTURE

THE COLLEGE OF LAW

THE COLLEGE OF MEDICINE AND SURGERY

THE COLLEGE OF HOMEOPATHIC MEDICINE AND SURGERY

THE COLLEGE OF DENTISTRY

THE COLLEGE OF PHARMACY

THE SCHOOL OF MINES

THE SCHOOL OF ANALYTICAL AND APPLIED CHEMISTRY

THE COLLEGE OF EDUCATION

THE GRADUATE SCHOOL

The Regents of the University have entrusted to their charge:

THE EXPERIMENT STATIONS, including—

THE MAIN STATION AT ST. ANTHONY PARK

THE SUB-STATION AT CROOKSTON

THE SUB-STATION AT GRAND RAPIDS

THE GEOLOGICAL AND NATURAL HISTORY SURVEY

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Bulletins of these schools, colleges and departments may be obtained upon application to the University Registrar.




# The Board of Regents

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CYRUS NORTHROP, LL.D., MINNEAPOLIS . . . .	<i>Ex-Officio</i>
The President of the University	
The HON. JOHN LIND, MINNEAPOLIS . . . . .	1914
The President of the Board	
The HON. JOHN A. JOHNSON, ST. PETER . . . .	<i>Ex-Officio</i>
The Governor of the State	
The HON. C. G. SCHULZ, ST. PAUL . . . . .	<i>Ex-Officio</i>
The State Superintendent of Public Instruction	
The HON. THOMAS WILSON, ST. PAUL . . . . .	1915
The HON. A. E. RICE, WILLMAR . . . . .	1915
The HON. B. F. NELSON, MINNEAPOLIS . . . . .	1910
The HON. PIERCE BUTLER, ST. PAUL . . . . .	1910
The HON. CHARLES A. SMITH, MINNEAPOLIS . . . .	1910
The HON. S. M. OWEN, MINNEAPOLIS . . . . .	1913
The HON. W. J. MAYO, ROCHESTER . . . . .	1913
The HON. HENRY B. HOVLAND, DULUTH . . . . .	1914

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C. D. DECKER, MINNEAPOLIS,   
 Secretary of the Board

# Executive Officers

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## THE UNIVERSITY

CYRUS NORTHROP, LL. D., PRESIDENT

ERNEST B. PIERCE, B. A., REGISTRAR

JAMES T. GEROULD, B. A., LIBRARIAN

C. D. DECKER, PURCHASING AGENT

J. D. BREN, CASHIER

## THE COLLEGES

JOHN F. DOWNEY, M.A., C. E., DEAN OF THE COLLEGE OF SCIENCE,  
LITERATURE AND THE ARTS

\*FREDERICK S. JONES, M.A., DEAN OF THE COLLEGE OF ENGINEERING  
AND THE MECHANIC ARTS

JOHN W. OLSEN, B.S., DEAN AND DIRECTOR OF THE DEPARTMENT OF  
AGRICULTURE

WILLIAM S. PATTEE, LL.D., DEAN OF THE COLLEGE OF LAW

FRANK FAIRCHILD WESBROOK, M.A., M.D., C.M., DEAN OF THE  
COLLEGE OF MEDICINE AND SURGERY

EUGENE L. MANN, B.A., M.D., DEAN OF THE COLLEGE OF HOMEOPATHIC  
MEDICINE AND SURGERY

ALFRED OWRE, D.M.D., M.D., DEAN OF THE COLLEGE OF DENTISTRY

FREDERICK J. WULLING, Phm.D., LL.M., DEAN OF THE COLLEGE OF  
PHARMACY

WILLIAM R. APPLEBY, M.A., DEAN OF THE SCHOOL OF MINES

GEORGE B. FRANKPORTER, M.A., Ph.D., DEAN OF THE SCHOOL OF  
CHEMISTRY

GEORGE F. JAMES, Ph.D., DEAN OF THE COLLEGE OF EDUCATION

HENRY T. EDDY, C.E., Ph.D., LL.D., DEAN OF THE GRADUATE SCHOOL

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ADA L. COMSTOCK, M.A., DEAN OF WOMEN

\*Resigned.

# The University Council

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At the regular meeting of the Board of Regents of the University, May 31st, 1905, a University Council was established according to the following plan:

I. The name of the body shall be The University Council. It shall consist of the President of the University, the Deans of the various colleges and schools, one elected representative from each college or school for each 400 students or major fraction thereof, and one representative of the general alumni association.

II. The elected members shall serve for a period of one year. They shall be chosen from the various faculties at the time of the selection of standing committees. The representative of the general alumni association shall be chosen by that body at its annual meeting from among the alumni who are not members of the University.

III. The Council shall be authorized to—

a) Appoint the following committees or the faculty representation thereon:

The University auditing committee

The University press committee

The committee on athletics

The committee on University relations to other institutions of higher learning

The committee on health and sanitation

The committee on commencement and other University functions

The committee on catalogue, programs and courses of study

The committee on student entertainments and social affairs

And such other committees as the general University interests may require.

b) Receive reports from such committees and make such recommendations as may be required.

c) Consider and act upon any matter of general University interest beyond the province of a single faculty which may be referred to it by the President of the University or any faculty.

IV. The Council shall hold stated meetings upon the first Monday of October, December, April and June, and such other meetings as the President of the University may call.

# Representatives to the Council

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## The University

PRESIDENT CYRUS NORTHROP

## The College of Science, Literature and the Arts

DEAN JOHN F. DOWNEY

PROFESSOR H. F. NACHTRIEB

PROFESSOR J. C. HUTCHINSON

PROFESSOR CARL SCHLENKER

PROFESSOR NORMAN WILDE

## The College of Engineering and the Mechanic Arts

DEAN FREDERICK S. JONES

PROFESSOR GEORGE D. SHEPARDSON

## The College and School of Agriculture

DEAN JOHN W. OLSEN

PROFESSOR HARRY SNYDER

PROFESSOR SAMUEL B. GREEN

## The College of Law

DEAN WILLIAM S. PATTEE

PROFESSOR HENRY J. FLETCHER

## The College of Medicine and Surgery

DEAN F. F. WESBROOK

PROFESSOR THOMAS G. LEE

## The College of Homeopathic Medicine and Surgery

DEAN EUGENE L. MANN

## The College of Dentistry

DEAN ALFRED OWRE

## The College of Pharmacy

DEAN FREDERICK JOHN WULLING

## The School of Mines

DEAN WILLIAM R. APPLEBY

## The School of Chemistry

DEAN GEORGE B. FRANKFORTER

## The College of Education

DEAN GEORGE F. JAMES

## The Graduate School

DEAN HENRY T. EDDY

## The Dean of Women

ADA L. COMSTOCK

## The University Library

JAMES T. GEROULD

## General Alumni Association

DAVID P. JONES

## The University Library

JAMES T. GEROULD



# University Council Committees

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## **The University Auditing Committee**

PROFESSORS RASTALL, FLETCHER, SIGERFOOS, SPRINGER,  
WASHBURN

## **The Committee on Athletics**

PROFESSORS PAIGE, HARDING, D. P. JONES, LITZENBERG,  
ROBINSON

## **The Committee on Grounds and Sanitation**

PROFESSORS FLATHER, BASS, BRACKEN, FLETCHER, FRANKFORTER,  
RANDALL, WESBROOK

## **The Committee on Catalogue, Programs and Courses of Study**

PROFESSORS GRAY, FLETCHER, A. E. HAYNES, JOHNSTON, SNYDER  
E. B. PIERCE

## **The Press Committee**

PROFESSORS SCHAPER, BEACH, CONSTANT, JOHNSTON, ROBINSON

## **The Committee on Commencement and other University Functions**

PROFESSORS NACHTRIEB, JAMES, KIRCHNER, PATTEE, RANDALL,  
SCHLENKER, DR. SCOTT, WILDE

## **The Committee on Student Entertainments and Social Affairs**

PROFESSORS FRANKFORTER, BASS, CLEMENTS, COMSTOCK, COOKE,  
OWRE, PIKE

## **The Committee on University Relations to other Institutions of Higher Learning**

PROFESSORS DOWNEY, BOTHNE, EDDY, GRAY, GREEN, JAMES,  
LEE

## **The Committee on University Extension and University Lectures**

PROFESSORS WEST, HAECKER, JUERGENSEN, RANKIN, SHEPARDSON

## **The Committee on the Library**

PROFESSORS EDDY, FLETCHER, F. S. JONES, LEE, REYNOLDS,  
VAN BARNEVELD, WEST, J. T. GEROULD



# College of Education.

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## FACULTY OF INSTRUCTION

CYRUS NORTHROP, LL.D., President  
GEORGE F. JAMES, Ph.D., Dean and Professor of Education  
A. W. RANKIN, B.A., Professor of Education  
FLETCHER HARPER SWIFT, Ph.D., Professor of Education  
JOHN F. DOWNEY, M.A., C.E., Professor of Mathematics  
JOHN G. MOORE, B.A., Professor of German  
CHRISTOPHER W. HALL, M.A., Professor of Geology and Mineralogy  
CHARLES W. BENTON, M.A., Litt.D., Professor of French  
JOSEPH M. THOMAS, M. A., Professor of Rhetoric  
JOHN CORRIN HUTCHINSON, B.A., Professor of Greek  
HENRY F. NACHTRIEB, B.S., Professor of Animal Biology  
JOHN ZELENY, Ph.D., Professor of Physics  
GEORGE B. FRANKFORTER, Ph.D., Professor of Chemistry  
WILLIS M. WEST, M.A., Professor of History  
J. J. FLATHER, Ph.B., M. M. E., Professor of Mechanical Engineering  
FRANCIS P. LEAVENWORTH, M.A., Professor of Astronomy  
JOSEPH BROWN PIKE, M.A., Professor of Latin  
SAMUEL G. SMITH, Ph.D., LL.D., Professor of Sociology  
NORMAN WILDE, Ph.D., Professor of Philosophy  
WILLIAM A. SCHAPER, Ph.D., Professor of Political Science  
FREDERIC E. CLEMENTS, Ph.D., Professor of Botany  
JOHN HENRY GRAY, Ph.D., Professor of Economics  
FRANCIS SQUIRE POTTER, M.A., Professor of English  
EDWARD VAN DYKE ROBINSON, Ph.D., Professor of Economics  
CARLYLE M. SCOTT, Professor of Music  
LOUIS J. COOK, M.D., Director of Gymnasium  
JOHN B. JOHNSTON, Ph.D., Associate Professor of Neurology

EDWARD M. LEHNERTS, M.S., Assistant Professor of Geology

D. D. MAYNE, Principal of the School of Agriculture

JAMES BURT MINER, Ph.D., Assistant Professor of Philosophy and  
Psychology

#### INSTRUCTORS

MARGARET BLAIR, Domestic Art

ANNA M. BUTNER, Physical Culture

HENRIETTA CLOPATH, Drawing

CHARLES M. HOLT, B.A., Education

LAURA FRANCES KENDALL, Music

ALICE J. MOTT, Ph.D., Principal of the Practice School

W. H. RICHARDS, Sloyd and Woodwork

S. C. SHIPLEY, B.S., M.E., Machine Work and Iron work

JUNIATA SHEPPERD, Domestic Science



## THE COLLEGE OF EDUCATION

The College of Education was authorized by a special enactment of the Legislature of Minnesota in 1905, and was established by the Regents of the University in the following year.

It offers both a practical and a theoretical training for prospective high school teachers and principals, for principals of elementary schools, for supervisors of special studies, and for superintendents of school systems.

## ADMISSION

Entrance examinations are held only at the beginning of the college year. Students prevented from entering at that time may be admitted later if the circumstances justify this action. Such students are, however, at a great disadvantage, and all students expecting to enter the college are urged to be present at the beginning of the year.

All applicants should present themselves to the Registrar, who will furnish them with application blanks and directions how to proceed with their examinations and registration.

## CONDITIONS OF ADMISSION

Students who plan to enter the College of Education are advised to consult with the Dean in regard to their course of study during their first year of college study. When they have completed with credit at least two full years of college work, they will be admitted to this college. During these two years they should have pursued one or more of the subjects which they expect to teach and, in addition, at least one course in general psychology.

## ADMISSION TO ADVANCED STANDING

## I. FROM OTHER COLLEGES

This college accepts records from all colleges of equal rank for credit to advanced standing. All candidates for graduation must, however, meet the conditions established by this college as indicated in a succeeding paragraph.

## II. FROM MINNESOTA NORMAL SCHOOLS

Graduates of the "advanced graduate course" of a Minnesota State Normal School who have completed in addition a full year of college

work will be admitted to the College of Education, but will not be permitted to elect either course 5 or course 7 in education. They will be granted twelve credits toward graduation in addition to thirty credits previously allowed on the work of the first two college years. Individual graduates of either of the five-year courses of a Minnesota State Normal School will be admitted under the same regulations, but without the additional twelve credits above named.

### UNCLASSED STUDENTS

Applicants who present satisfactory reasons for not taking the regular course may be admitted as unclassified students upon proof of fitness to profit by the work. The same general attainments are expected of these students as are required of those who enter the regular course. Unclassified students must take the same number of hours as regular students, except that men and women actually engaged in teaching may be allowed to enter for a less amount of work upon the approval of the committee in charge.

### EXAMINATIONS

At the close of each semester examinations are held and students are reported as "excellent," "good," "passed," "incomplete," "conditioned," or "failed." An "incomplete" must be removed within one month from the opening of the following semester, or it becomes a "condition."

A "condition" not made up before the subject is offered again becomes a "failure," subject to rules governing failures. "Failures" must be pursued again in class. A student who at any time is deficient in more than half a year's work loses his class rank and is regarded as a member of the next lower class. Students whose absences in any term exceed four weeks in the aggregate are not permitted to take the term examinations without special permission of the faculty.

### FAILURE TO KEEP UP WITH THE CLASS

Any student receiving conditions or failures in 60 per cent of the work the first semester shall be dropped from the rolls and shall not be allowed to re-enter the University until the opening of the following year.

Any student failing to pass in one-half of the work of any year shall not be allowed to register until reinstated by action of the faculty upon recommendation of the committee on students' work.

### FEES

All students in the college who are residents of the state, are charged an incidental fee of ten dollars a semester. Non-residents are charged

double the fee required of residents of the state, or twenty dollars a semester. No reduction is made for late entrance or for leaving before the end of the semester. Save in the case of the first registration, the incidental fee is increased by twenty-five cents for each day's delay in registration, beginning with the first day set for recitations. The usual fees for shop work are required of students in manual training.

### COURSE OF STUDY

The College of Education offers a two-year course of study leading to the degree of Bachelor of Arts (in Education). The preparation for teaching which is afforded in these two years, in addition to two years of previous collegiate study, is planned to include first of all a thorough grounding in the correct use of English, both spoken and written. No student should propose to go into his work without adequate training of this kind, no matter what subjects he himself expects to teach, and no one will be graduated from the College of Education who has not attained a satisfactory standard in this particular.

A second element in the preparation of the future teacher is found in the courses in general and educational psychology, in the history and the organization of schools, in educational theory, and in the practice of teaching. Courses in psychology and in the history of education must be pursued by all students, and additional courses are elective in the theory and the practice of elementary and of secondary teaching, in the history of secondary education, in school organization and law, and in school hygiene.

A third part of the teacher's training is found in the specific subjects which he proposes to teach. In this particular the standard in Minnesota schools is constantly rising, and year by year school trustees are asking of all high school teachers more definite and adequate preparation in the subjects assigned them. This preparation is not possible unless the prospective teacher selects his subjects early in the college course and effects also a desirable and natural combination. When this is done the work required for a bachelor's degree may be arranged to give both a liberal and a special training.

A third year of study leads to the degree of Master of Arts. The work of this year includes advanced studies in education and in philosophy, and in one or more of the subjects of the secondary curriculum, at the option of the candidate. The course is planned especially for those holding the degree of Bachelor of Arts who desire to prepare themselves more carefully either for high school teaching or for work as principals and superintendents. Young men and young women who propose to take up this work permanently will find it advisable to do graduate study either immediately upon receiving the bachelor's degree or after a period of practical experience in teaching.

## THE DEGREE OF BACHELOR OF ARTS IN EDUCATION

The degree of Bachelor of Arts(in Education) is granted to candidates on the following conditions:

A. The completion of college courses amounting to one hundred and twenty-six (126) credits, in addition to the required exercises in drill, gymnasium and physical culture. The courses selected must be approved by the committee in charge. No student shall elect less than fifteen or more than eighteen hours per week without special permission.

A credit is one hour per week through one semester.

B. At least fifteen (15) credits shall be secured in Education, including courses 1 and 2.

C. An amount of work shall be taken in at least three departments concerned with the studies of the secondary curriculum sufficient to secure one major and two minor recommendations. Each minor recommendation will require not less than twelve (12) credits and each major not less than eighteen (18) credits in one department.

D. Each candidate for graduation must show an average of scholarship through four years of college work indicated by at least as many marks of "good" as of "pass," and must be counted as "good" by the department which recommends him.

E. A maximum of twelve credits is elective from the laboratory and shop courses in the manual arts and agriculture, but, in addition, credit is allowed for allied courses toward the bachelor's degree, in the case of students who desire to specialize in manual training, domestic art, domestic science or agriculture.

## GRADUATION "WITH DISTINCTION"

The bachelor's degree "with distinction" is granted to students of this college on the following conditions:

A. The degree "with distinction" is based on special excellence in the major subject.

B. Students who wish to be candidates for this degree must register before the beginning of the senior year, and are advised to register upon entering the college.

C. At the time of application the student must have an average of "good" in all of his previous work. (For the purpose of this count one "excellent" shall balance one "pass").

D. To receive the degree "with distinction" the student must meet all the conditions applying to the ordinary degree, must show a record higher than "pass" in four-fifths of all his work, must present a satisfactory thesis upon his major subject by May first of the senior year, must comply with the special requirements of the department chosen, must be



recommended to the faculty for special excellence, and be approved by the vote of the faculty.

## OBSERVATION AND PRACTICE TEACHING

The critical observation of good teaching and the practice of teaching under skilled supervision form a most important part of the preparation of the teacher. In connection with two courses on the practice of elementary and secondary teaching, opportunity has been given students during the past two or three years to observe and to discuss the best methods of teaching employed in the public schools of Minneapolis, St. Paul, and adjacent towns. This plan was adopted as the only feasible substitute at that time for adequate opportunities in the way of observation and of practice. These opportunities, it was recognized from the first, can be furnished only in a school organized under the direct control of this college.

In November, 1907, a small school was installed in temporary quarters provided by the regents, and during that academic year classes were conducted in seventh grade and in eighth grade work. In September, 1909, the school will, it is expected, be ready to enroll pupils from the seventh grade to the tenth grade inclusive, and thereafter, as facilities may be organized, the courses of the school will be extended up through the high school years and down through the elementary years. The primary purpose in this school is to afford prospective high school teachers an opportunity for seeing the work of the secondary schools conducted under normal conditions in as efficient a way as possible, in order that they may gain by observation and, to some extent, by practice familiarity with the instruction and management proper to a school of this grade. In addition, a fully graded elementary school, with kindergarten, ungraded room, and a three grade group is planned as a place of observation and practice for prospective school principals and superintendents.

The elementary and high school for observation and practice in connection with the training of teachers is the prime condition of success. To organize this adequately means buildings of considerable size, suitable and sufficient furniture and equipment, school libraries, laboratories, shops, gardens, and playgrounds. To secure this is the first aim and desire of the college. Meanwhile, the fullest use will be made of the temporary facilities, which are all that, during this year, the governing board is able to provide.

## COMMERCIAL TRAINING

No definite course is now prescribed for those who are planning to teach business subjects (including commercial geography) in the high

schools, but all are advised to take at least a three years' course in economics and to elect courses also in political science and in history. Each student is advised further to select work in rhetoric, in English literature, and in one modern foreign language.

Students who expect to teach commercial geography will do well to select courses in some of the following subjects: essentials of physical geography, advanced general chemistry, industrial botany, economic zoology, applied geology, and anthropology. In economics, courses are suggested in economic geography, in industrial and commercial history, the principles of accounting, and the elements of business law. These are general suggestions for those who wish to prepare themselves for the teaching of commercial subjects, but each candidate should very early consult with the committee in regard to the outlining of his entire course.

### MANUAL TRAINING

The increasing demand for teachers who are able not only to handle two or three of the ordinary high school subjects, but also to direct the manual training work of the elementary and of the high school grades, is straining the facilities of our training schools for teachers in Minnesota. This college is not yet in a position to provide adequate facilities, but in co-operation with the College of Engineering is able to offer at least introductory courses of this kind. Young men who desire to prepare themselves for manual training work may register in the college for courses of this description. By utilizing the shops on the campus and other opportunities here offered, future manual training teachers may prepare themselves both in woodwork and in ironwork. With these, students may also unite courses in descriptive geometry, in mechanical drawing, and in allied subjects, and in this way they may secure a fairly satisfactory preparation for the teaching of these branches in connection with some of the regular high school studies.

### DOMESTIC ART AND DOMESTIC SCIENCE

These subjects are being added each year to the school course in an increasing number of Minnesota towns. So far, superintendents and boards of education have experienced considerable difficulty in securing teachers in these lines. The larger towns and cities can engage trained teachers and supervisors, but in the smaller communities on the first introduction of these subjects, it is necessary to entrust them to teachers able to give instruction in some high school studies.

A good opportunity, therefore, lies before prospective teachers who, in addition to a preparation in the ordinary studies of the high school course, will prepare for the direction of these subjects. Students who are inter-

ested in this line of work will be directed early in their college course in the selection of foundation work in geography, chemistry, physics, and other related subjects, and will thus be prepared to elect during the last year or two the more technical instruction in domestic art and domestic science.

### SATURDAY CLASSES AND COLLEGE EXTENSION COURSES.

The college has offered during the past year a number of professional courses for those actually engaged in teaching, and most of this work has been organized for Saturdays and for the latter part of the afternoon on other days of the week. Teachers of Minneapolis and of St. Paul have registered in considerable numbers for this work, and teachers have come also from smaller adjacent towns. The courses arranged on the campus of the university for teachers will be continued and increased in number during the coming year.

Extension courses by members of the college faculty were given during 1907-8 and 1908-9 in St. Paul under the auspices of a citizens' committee, and under the immediate direction of the city superintendent. Lectures on literature, anthropology, on general and on education psychology, on school administration, and on the history of education were given each week through the school year, and the enrollment in the courses was large. The college plans to make available, as far as possible, its resources in teachers and equipment to all the school systems of Minnesota, particularly those of towns in the neighborhood of the Twin Cities. It will be possible, from time to time, to secure from the college a series of weekly or fortnightly lectures upon almost any of the ordinary branches of higher study.

### THE UNIVERSITY SUMMER SCHOOL

The summer school which has been held at the university for more than fifteen years is under the direction, not of the regents, but of the state department of public instruction. There is no official connection, therefore, between the summer school and the College of Education, but the school has been planned for many years especially to suit the needs and desires of Minnesota teachers, and in the college section the courses are arranged for teachers in state high schools who desire further preparation for their work. At the same time graduate courses are provided in connection with the school for teachers, principals, and superintendents who cannot attend during the academic year, and undergraduate courses leading to the degree of bachelor of arts are also provided for teachers. Men and women who have not completed the requirements for the bachelor's degree are enabled in this way to supplement their previous studies and to bring themselves where a few months of resident study will enable

them to finish their college course. The courses provided during this six weeks' session in June and July are given to a considerable extent by members of the faculty of this college.

### LIBRARY FACILITIES

The professional library of the college contains a large selection of works on the various phases of education and is at the service not only of the students of the college, but of visiting teachers. During the past year a text-book collection was added covering the field of secondary schools. As soon as possible this illustrative library will be supplemented by model equipment of other kinds, thus offering concrete suggestions on questions of school furnishing and supplies.

Under certain restrictions the use of part of the professional library will presently be made possible for non-resident students.

### THE DEGREE OF MASTER OF ARTS

Graduates of the University of Minnesota and of other institutions of equal rank will be admitted to work leading after one year of study to the degree of Master of Arts, upon the usual conditions attaching to that degree. They will be expected, however, to have given considerable attention in their collegiate work to psychology, and to the history, the theory, and the practice of teaching.

Men and women actually engaged in teaching in Minnesota and possessing the bachelor's degree from a college of good rank will be allowed to pursue graduate studies in absentia. For non-resident students a special course is arranged with education as the major subject. Two years are required and three are allowed for the completion of this work.

### THE UNIVERSITY TEACHER'S CERTIFICATE

The University Teacher's Certificate is granted to all graduates of the College of Education and to those graduates of the College of Science, Literature, and the Arts who complete one course in general psychology and three courses in education, including courses 1 and 2, and who secure on the basis of excellent scholarship one major recommendation as qualified for teaching from a department of that college concerned with some branch of the secondary curriculum.

### SPECIAL LECTURES

In addition to the courses announced for the College of Education, special lectures will be given from time to time, open to all students, by



men closely identified with public education in Minnesota. Educational organization, ideals, and methods will be treated from the point of view of those concerned with the state department of public instruction, the inspection of state graded and high schools, the state normal schools, city school systems, and with the conduct of schools in smaller communities.

Public lectures will be given also by men familiar with the educational conditions, experiments, and tendencies in other states.

### THE EDUCATIONAL CLUB

This organization is made up of those giving instruction in the College of Education and of students registered for advanced work. Meetings are held from time to time during the college year for the discussion of current questions in education and for reports and discussion upon recent educational literature, books, magazines and journals.

### COURSES OF INSTRUCTION

Fuller descriptions of some of the courses offered may be found in bulletins of the College of Science, Literature and the Arts, the College of Engineering, the School of Chemistry, and the College of Agriculture.

### RELATED DEPARTMENTS

The table below gives groups of related departments, but for convenience of reference in the departmental statements which follow the departments are arranged in alphabetical order, after the statements in education.

- I. English Language and Literature
  - (a) English, (b) Comparative Philology, (c) Rhetoric
- II. Ancient Languages and Literatures
  - (a) Greek, (b) Latin, (c) Semitic Languages
- III. Modern Languages and Literatures
  - (a) German, (b) Romance Languages, (1) French, (2) Spanish, (3) Italian, (c) Scandinavian Languages
- IV. Biological Sciences
  - (a) Animal Biology, (b) Botany, (c) Paleontology
- V. Physical Sciences
  - (a) Chemistry, (b) Geology and Mineralogy, (c) Physics
- VI. Pure and Applied Mathematics
  - (a) Mathematics, (b) Astronomy, (c) Mechanics, (d) Physics
- VII. Philosophy, Education, and Anthropology
  - (a) Philosophy and Psychology, (b) Education, (c) Anthropology

## VIII. Social Sciences

(a) Economics and Political Science, (b) History, (c) Sociology

## IX. Fine Arts

(a) Drawing, (b) Music

## X. Agriculture, Domestic Art and Science, and Manual Training.

# Courses of Study.

## EDUCATION

GEORGE F. JAMES, Professor, Head of the Department of Education

ALBERT W. RANKIN, Professor

FLETCHER HARPER SWIFT, Professor

JAMES BURT MINER, Assistant Professor

ALICE J. MOTT, Instructor

CHARLES M. HOLT, Instructor

### 1. HISTORY OF EDUCATION TO THE REFORMATION

MR. SWIFT

Three credits (three hours per week)

First semester

Open to juniors and seniors

An introductory study in the history of education conducted by lectures, assigned readings, discussions and reports. The purpose of the course is to arouse an interest in educational problems, to secure some perspective for use in current investigation, with some command of the facts of educational history, and some ease in the methods of historical study. An attempt is made to bring out education as one phase of civilization and to show the connection of schools with other social institutions. Attention will be given especially to an examination of the schools of Greece and of Rome, the education of the early Christian centuries, the development of the different types of schools in Medieval times, the rise of the university and of the humanistic schools of the Renaissance.

### 2. HISTORY OF MODERN EDUCATION

MR. SWIFT

Three credits (three hours per week)

Second semester

Open to juniors and seniors who have completed course 1.

A somewhat intensive study of the periods in the history of modern education, with special reference to the development of the various national systems of public instruction. Different types of educational theory are considered in connection with a study of the men who first advanced them, and of the schools in which they were first put into effect. This course is a direct preparation for an understanding of the educational systems, theories, and practices of the present.

### 3. EDUCATIONAL PSYCHOLOGY

MR. MINER

Three credits (three hours per week)

Each semester

Open to juniors who have completed philosophy 1.

Identical with philosophy 2.

The study of mental development in its relation to heredity and training.

Lectures and student reports on the facts and theories of childhood and adolescence with special reference to their bearing on education.

### 4. SECONDARY EDUCATION

MR. JAMES

Three credits (three hours per week)

First semester

Open to seniors who have completed courses 1 and 2.

A study of secondary education in the United States, with such references to

the secondary schools of other countries as will lead to a clearer understanding of the place and function of the high school, its curriculum, the problems of present-day importance, and the relation of the high school to other parts of the system of public instruction. The course will be conducted by lectures, reports and discussions.

5. PRINCIPLES AND ORGANIZATION OF ELEMENTARY TEACHING Mr. RANKIN  
Three credits (three hours per week) First semester  
Open to seniors who have completed courses 1 and 2 and philosophy 1.

This course includes a consideration of the course of study of the elementary school and of the best methods of instruction. It is conducted by means of lectures, assigned readings, discussions and reports. It is planned for all students who expect to teach in the high schools or to be principals or superintendents. No credit is given in this course to graduates of normal schools who have received one year's credit at the university.

6. PRINCIPLES AND ORGANIZATION OF SECONDARY TEACHING Mr. RANKIN  
Three credits (three hours per week) Second semester  
Open to seniors who have completed courses 1 and 2.

This course includes lectures on the general methods of secondary teaching, assigned readings, reports, and discussions. It is planned more particularly for those who expect to teach in high schools.

7. THE THEORY OF EDUCATION Mr. JAMES  
Three credits (three hours per week) First semester  
Open to juniors and seniors who have completed philosophy 1.

An introductory course in educational theory, including a somewhat detailed study of the principles on which is based the present practice in teaching. No credit is given in this course to graduates of normal schools who have received one year's credit at the university.

8. SCHOOL ADMINISTRATION Mr. RANKIN  
Three credits (three hours per week) First semester  
Open to seniors who have completed courses 1 and 2.

An introductory study of school administration, conducted by lectures, reports and discussions; the organization of school systems, the work of school boards, superintendents, principals and teachers, school buildings, and hygiene. This course is planned for students without any teaching experience, who hope later to do work in supervision.

9. SCHOOL SUPERVISION Mr. RANKIN  
Three credits (three hours per week) Second semester  
Open to seniors; intended only for students with experience in teaching.

An advanced course treating of the duties of school principals and superintendents. Credit will not be given both for course 8 and for course 9.

10. COMPARATIVE STUDY OF SCHOOL SYSTEMS Mr. JAMES  
Three credits (three hours per week) Second semester  
Open to seniors who have completed courses 1 and 2.

This course deals with the school systems of Germany, France, England and the United States, with special reference to principles and methods of administration. Elementary, secondary and higher institutions are examined with emphasis varying in successive years. The course is conducted partly by lectures and partly by assigned readings, reports and discussions.

11. MODERN EDUCATIONAL THEORIES MR. JAMES  
Three credits (three hours per week) Second semester  
Open to seniors who have completed courses 1 and 2 and philosophy 1.  
An advanced course in educational theory, dealing particularly with the contributions of Rousseau, Froebel, and Herbart, special emphasis being laid upon one of these writers in each successive year.
12. CURRENT PROBLEMS IN ELEMENTARY TEACHING MR. RANKIN  
Two credits (two hours per week) First semester  
Open to seniors who have completed course 5 and to graduate students.  
This is a seminar course, involving a general discussion of some current problems in elementary education, one or two of which are worked out practically by the student under the direction of the instructor, through readings, the visiting of schools and through class discussions.
13. EDUCATIONAL CLASSICS MR. JAMES  
Two credits (two hours per week) First semester  
Open to seniors who have completed courses 1 and 2, and to graduates.  
A seminar course for the reading of selected educational classics and for the detailed study of corresponding periods in educational history.
14. CURRENT PROBLEMS IN SECONDARY TEACHING MR. RANKIN  
Two credits (two hours per week) Second semester  
Open to seniors and to graduate students who have completed course 6.  
This is a seminar course for advanced students, preferably with teaching experience, who wish to pursue a theoretical and a practical study of some current problem in connection with secondary teaching. The course will be conducted by lectures, class discussion, readings and by the visiting of schools.
15. PROBLEMS IN SCHOOL ADMINISTRATION MR. JAMES  
Two credits (two hours per week) Second semester  
Open to seniors and to graduate students who have completed courses 1 and 2.  
A research course for advanced students, preferably with teaching experience, who desire to take up the investigation of some question of educational administration. The course will be conducted by lectures, class discussions, assigned readings, and, when possible, by a study of actual school conditions falling within the proposed field.
16. SCHOOL SANITATION MR. RANKIN  
Two credits (two hours per week) First semester  
Open to seniors and to graduate students.  
This course will be conducted by text, by lectures, and by investigation into the problems of school lighting, heating, and ventilation, and other questions of school architecture and management connected with the physical well-being of the pupils.
17. ORGANIZATION OF HIGHER EDUCATION MR. JAMES  
One credit (one hour per week) Second semester  
Open to seniors and to graduate students who have completed courses 1 and 2  
This course is intended for students who are interested in the general problems of educational administration, and who look forward later to college teaching. It includes a historical sketch of the development of the American University, with discussions of modes of organization and administration, problems of departmental management, and questions of class instruction.



18. PRACTICE TEACHING MR. RANKIN and Miss MOTT  
 Three credits (three hours per week) Each semester  
 Open only to seniors and to graduate students.  
 The registrar will accept enrollment only on written permission to the student from the instructor in charge, specifying one of the morning periods to be kept free for this work on each day of the week; five periods of teaching and Saturday conference; not counted as one of the five courses in education required for graduation.  
 This is a course in observation and practice teaching, related for the present to the work of advanced grammar and first high school grades. As facilities permit, the work of other grades will be added.
19. TECHNIQUE OF READING MR. HOLT  
 Three credits (three hours per week) Each semester  
 Open only to a limited number of seniors after individual tests by the instructor.  
 This course is given in two sections, for those who are specializing in this work, and for those noticeably deficient in voice control.
20. HISTORY OF RELIGIOUS EDUCATION MR. SWIFT  
 One credit (one hour per week) First semester  
 Open to juniors, seniors, and graduate students.  
 An introductory study of the development of the religious consciousness and of the aim, means, and methods of religious instruction among certain types selected from ancient and modern civilizations.
21. PRINCIPLES OF RELIGIOUS EDUCATION MR. SWIFT  
 One credit (one hour per week) Second semester  
 Open to juniors, seniors, and graduate students.  
 A study of the most important principles of education, viewed from the standpoint of their relation and application to religious activities and institutions, and also to the means, methods, and materials of religious instruction.

## AGRICULTURE

D. D. MAYNE, Principal of the School of Agriculture

1. ELEMENTS OF AGRICULTURE MR. MAYNE  
 Three credits (three hours per week) First semester  
 Open to juniors and seniors.  
 This course is planned to meet the increasing demand for a knowledge of the elements, at least, of agriculture on the part of graded school principals, rural school teachers, county superintendents of schools, and others concerned with education in the agricultural sections of the state. The course is given at the School of Agriculture on Tuesday and Saturday afternoons.
2. ELEMENTS OF AGRICULTURE (Continued) MR. MAYNE AND ASSISTANTS  
 Three credits (three hours per week) Second semester  
 Open to juniors and seniors.  
 This is a continuation of course 1 and is planned to give the student some familiarity with the underlying principles and the simple processes connected with various forms of agricultural work. Tuesday and Saturday afternoons. Mr. Mayne will have the co-operation of others connected with this branch of the University.

ANIMAL BIOLOGY

CHARLES P. SIGERFOOS, Professor  
OSCAR W. OESTLUND, Assistant Professor  
HAL DOWNEY, Assistant Professor  
JOHN C. BROWN, Assistant Professor  
CHARLES E. JOHNSON, Assistant  
PETER OKKELBERG, Assistant

1. GENERAL ZOOLOGY      MESSRS. SIGERFOOS, OESTLUND, BROWN, DOWNEY,  
   JOHNSON AND OKKELBERG  
Six credits (three hours per week)      Both semesters  
Open to all; the laboratory fee is three dollars per semester.  
Lectures, quizzes, and laboratory work. Text-book—Hertwig's Manual of Zoology. This course should be taken in the first or the second college year by all who expect to teach the subject.
2. MORPHOLOGY OF INVERTEBRATES      MESSRS. SIGERFOOS AND JOHNSON  
Six credits (six hours per week)      Both semesters  
Open to those who have completed course 1; both semesters must be completed before credit will be given for the first; the laboratory fee is three dollars per semester.
3. ESSENTIALS OF HISTOLOGY AND EMBRYOLOGY      MESSRS. NACHTRIEB AND DOWNEY  
Six credits (six hours per week)      Both semesters  
Open to those who have completed course 1; the laboratory fee is three dollars per semester.
4. COMPARATIVE ANATOMY OF VERTEBRATES      MESSRS. BROWN AND JOHNSON  
Six credits (six hours per week)      Both semesters  
Open to those who have completed course 1 or its equivalent; both semesters must be completed before credit is given for the first semester; the laboratory fee is three dollars per semester.
5. GENERAL PHYSIOLOGY      MR. NACHTRIEB  
Six credits (three hours per week)      Both semesters  
Open to those who have completed course 1; both semesters must be completed before credit is given for the first semester.

Demonstrations and simple experiments constitute a part of the course in both semesters.

13. **TEACHER'S COURSE** MR. NACHTRIEB AND ASSISTANTS  
 One credit (one hour per week) First semester  
 Open to those who have completed a minor in zoology; given in alternate years.  
 Lectures and discussions on the ends to be attained through courses in general zoology, and on the methods and means by which such ends may be gained.
15. **ELEMENTS OF ENTOMOLOGY AND ORNITHOLOGY** MESSRS OESTLUND AND BROWN  
 Six credits (six hours per week) Both semesters  
 Open to those who have completed course 1; both semesters must be completed before credit is given for the first semester; the laboratory fee is three dollars per semester.

This course is planned with special reference to candidates for the teacher's certificate. During the first semester the class meets with Mr. Oestlund during the third and fourth hours on Monday, Wednesday and Friday. During the second semester the class meets with Mr. Brown on Monday, Wednesday and Friday at the hours arranged with him.

FOR A MAJOR, courses 1 and 15 and one course selected from courses 2, 3, 4, and 5 are required, with an average of at least good, together with six credits in botany. Course 13 in zoology is recommended.

Students may select additional work, on the approval of the head of the department, from other courses announced in animal biology.

## ASTRONOMY

FRANCIS M. LEAVENWORTH, Professor, Head of the Department of Astronomy

1. **GENERAL ASTRONOMY** MR. LEAVENWORTH  
 Six credits (three hours per week) Both semesters  
 Open to those who have completed mathematics 4 (trigonometry).  
 The study of the general principles of astronomy, illustrated by lantern slides and telescopic observations. This course may be combined with course 2.
2. **OBSERVATORY PRACTICE** MR. LEAVENWORTH  
 Six credits (three hours per week) Both semesters  
 Open to those who have completed or are taking course 1.  
 Work at the observatory in connection with course 1.
3. **PRACTICAL ASTRONOMY** MR. LEAVENWORTH  
 Six or twelve credits (three or six hours per week) Both semesters  
 Open to juniors or seniors who have completed course 1 and mathematics 7, 9, and 10.

The theory and use of astronomical instruments in determining time, latitude, longitude, and positions of heavenly bodies; astronomical photography, with measurements of plates; study of the method of least squares.

## BOTANY

FREDERICK E. CLEMENTS, Professor, Head of the Department of Botany

JOSEPHINE E. TILDEN, Assistant Professor

CARL OTTO ROSENDANL, Assistant Professor

FREDERICK K. BUTTERS, Instructor

NED L. HUFF, Instructor

ALICE MISZ, Assistant

1. GENERAL BOTANY MESSRS. CLEMENTS, HUFF, AND BUTTERS  
AND MISS MISZ  
Six credits (six hours per week) Both semesters  
Open to all; both semesters must be completed before credit will be given for the first semester; the laboratory fee is three dollars per semester.
2. ADVANCED BOTANY MESSRS. CLEMENTS AND ROSENDAHL  
Six credits (six hours per week) Both semesters  
Open to those who have completed course 1; the laboratory fee is three dollars per semester.
3. PLANT PHYSIOLOGY AND ECOLOGY MESSRS. CLEMENTS AND HUFF  
Six credits (six hours per week) Both semesters  
Open to those who have completed courses 1 and 2; by permission of the department the course may be taken in conjunction with course 2; the laboratory fee is three dollars per semester.
4. ALGAE MISS TILDEN  
Six credits (six hours per week) Both semesters  
Open to those who have completed courses 1 and 2; the laboratory fee is three dollars per semester.
5. FUNGI MR. CLEMENTS  
Six credits (six hours per week) Both semesters  
Open to those who have completed courses 1 and 2; the laboratory fee is three dollars per semester.
6. MOSSES AND FERNS MESSRS. ROSENDAHL AND HUFF  
Six credits (six hours per week) Both semesters  
Open to those who have completed courses 1 and 2; the laboratory fee is three dollars per semester.
11. INDUSTRIAL BOTANY MISS TILDEN  
Six credits (six hours per week) Both semesters  
Open to technical students who have completed course 1, and to academic students who have completed courses 1 and 2.  
A study of the origin, distribution and cultivation of plants yielding products of economic value, the nature and use of these products, and the processes by which they are obtained from the plants. Lectures, demonstrations, topics and laboratory work.
16. TEACHERS' COURSE—Plant Studies and Methods MR. CLEMENTS  
Six credits (six hours per week) Both semesters  
Open to those who have completed courses 1 and 2; the laboratory fee is three dollars per semester.  
A course for teachers and for students intending to teach; the subjects of nature study and high school botany are presented as they are taught, and not from the university point of view. The material is taken up in detail, in its proper sequence, and training in method is afforded, as far as possible, by practice in the elementary school of the College of Education.

FOR A MAJOR, eighteen credits, with an average of at least good, are required, including courses 1 and 2 and one advanced course covering two semesters, together with six credits in zoology. Courses 11 and 16 in botany are recommended.



Students may select additional work, on the approval of the head of the department, from other courses announced in botany.

## CHEMISTRY

GEORGE B. FRANKFORTER, Professor, Head of the Department of Chemistry

CHARLES F. SIDENER, Professor

EDWARD E. NICHOLSON, Assistant Professor

IRA H. DERBY, Assistant Professor

LILLIAN COHEN, Instructor

FRANCIS C. FRARY, Instructor

JOHN A. HANDY, Instructor

WALTER BADGER, Assistant

### 1. GENERAL CHEMISTRY

MISS COHEN AND MR. BADGER

Six credits (six hours per week)

Both semesters

Open to all who do not present any entrance credits in chemistry, but juniors and seniors receive only half credit; both semesters must be completed before credit is given for the first semester; the laboratory fee is five dollars per semester.

Recitations and laboratory work; the course includes a study of the common elements and their compounds, with an introduction to the modern theories of chemistry.

### 2. ADVANCED GENERAL CHEMISTRY

MR. FRANKFORTER, MISS COHEN AND

MR. BADGER

Six credits (six hours per week)

Both semesters

Open to all who have completed a satisfactory course in general chemistry; both semesters must be completed before credit is given for the first semester; the laboratory fee is five dollars per semester.

Lectures and laboratory work; the ground covered includes an introduction to physical and technological chemistry, with an exhaustive study of the chemical elements.

### 3. QUALITATIVE ANALYSIS

MESSRS. NICHOLSON AND FRARY

Six credits (six hours per week)

Both semesters

Open to those who have completed course 2; the laboratory fee is five dollars per semester.

Lectures and laboratory work, with recitations and collateral reading. The course includes the general reactions of the metals and the acids, with their qualitative separation. Besides this mechanical work, the ionic theory and the law of mass action are discussed with special reference to common qualitative reactions.

### 4. QUANTITATIVE ANALYSIS

MR. SIDENER AND ASSISTANTS

Six credits (six hours per week)

Both semesters

Open to those who have completed course 3; the laboratory fee is seven dollars per semester.

The course includes a general discussion of quantitative methods, with laboratory work in gravimetric analysis, first semester; followed the second semester by a discussion of standard solutions and the necessary stocheometric calculations, with laboratory work in volumetric analysis.



5. ORGANIC CHEMISTRY MESSRS. FRANKFORTER, DERBY, HANDY AND ASSISTANTS  
 Nine credits (three lectures and twelve hours of laboratory work per week)  
 Second semester  
 Open to those who have completed course 3; the laboratory fee is ten dollars.  
 This course includes the aliphatic and aromatic series, with the preparation of the more important compounds.
6. THEORETICAL CHEMISTRY MR. DERBY  
 Two credits (one lecture and one recitation per week) Second semester  
 Open to those who have completed course 5;  
 The course involves a study of the most important theories which co-ordinate and unify chemical and physico-chemical phenomena.
26. TEACHER'S COURSE MISS COHEN  
 Two credits (two hours per week) Second semester  
 Open to those who have completed course 3; the laboratory fee is three dollars.  
 The course is offered to those who are interested in the teaching of chemistry. No regular laboratory work will be offered, but certain experiments illustrating the difference between good and poor work may be given.

FOR A MAJOR, courses 2 and 3, course 4 or course 5, and course 26, with an average of at least good, are required, together with six additional credits in physical science.

## DOMESTIC ART AND DOMESTIC SCIENCE

MARGARET BLAIR, Instructor  
 JUINATA L. SHEPPERD, Instructor

These courses cover specifically the science and art of the home. In the reactionary movement away from the theoretical and toward the practical in education, the need of teachers of scientific and artistic home-making has become marked. To meet this demand the following courses have been organized.

### DOMESTIC ART

Domestic art has to do with the very beginning of home-making, the selection of a site, the adaptation of architecture to the needs of the family, the choice of materials, colors, etc., and their relation to the surroundings, the interior of the home, its furniture and keeping. All of these topics are viewed in both their economic and their social aspect. In addition a full course is offered in needle-work in all its branches.

1. A STUDY IN TEXTILES MRS. BLAIR  
 Three credits First semester  
 Open primarily to those who expect to teach this subject.  
 Animal and vegetable fibres, weaves and dyes, testing fabrics for household use and personal wear, the hygiene values of various fabrics, harmony of color. This course is designed especially to assist the teaching of sewing in graded schools, and

includes the preparation, explanation and making of models suited to grade work in the public schools. This course will be given upon Monday and Thursday afternoons, at the School of Agriculture.

## 2. DESIGN AND GARMENT DRAFTING

Three credits

MRS. BLAIR  
Second semester

Open to those who have completed course 1.

This course is in the design and drafting of children's and adults' garments and includes also a series of lectures upon the home.

This course will be given on Monday and Thursday afternoons at the School of Agriculture.

## DOMESTIC SCIENCE

Domestic science has to do with the chemistry of the table; the science of cooking, and the housewifely care of the kitchen and dining-room; household accounts and the administration of the home upon an economical basis, are discussed in their various relation to these courses, and the effort is toward system, economy and effectiveness in home management. Students who look forward to teaching are trained to assist in the teaching or supervision of this work in city schools or to have the entire charge of the work, in connection with other teaching, in the smaller high schools.

## 1. LAUNDERING AND FOOD ECONOMICS

Three credits

MISS SHEPPERD  
First semester

Open primarily to those who expect to teach this subject.

In this course the subject of domestic and commercial laundering and cleaning is first considered, with a study of removing stains, dyeing, setting colors, cleaning delicate fabrics, the use of cleaning agents, starches and bluing. By far the larger part of the semester is given to a study of food economics, with a consideration of all phases of the selection of food materials and the preparation of food. The course is conducted by means of lectures, readings, with the writing of a thesis, and by full individual practical experience in all parts of the work.

The course is given on Wednesday and Friday afternoons at the School of Agriculture.

## 2. MANAGEMENT OF KITCHEN AND DINING ROOM

Three credits

MISS SHEPPERD  
Second semester

Open to those who have completed course 1.

(a) The kitchen equipment, sanitation, labor saving devices, etc.

(b) The dining room, equipment, furniture, decorations, management, etc.

(c) Household inventories, bills of fare, fancy cookery, etc.

The above course is made, as far as possible, both practical and scientific. It requires three hours of work on each of two afternoons. Students who are interested in this line are advised to read a fuller description, which will be found in the Bulletin of the School of Agriculture.

## DRAWING

HENRIETTA CLOPATH, Instructor  
MAUD H. STEWARD, Assistant

1. DRAWING AND PAINTING IN REPRESENTATION Miss CLOPATH  
 Six credits (six hours per week) Both semesters  
 Open to sophomores with the permission of the instructor, juniors, and seniors.  
 Drawing of plant-form and landscape in pencil, water color, and charcoal; the study of perspective and the drawing of still life; drawing from the cast and sketching from life.
2. ADVANCED DRAWING AND PAINTING Miss CLOPATH  
 Six credits (six hours per week) Both semesters  
 Open to sophomores, juniors, and seniors who have completed course 1.  
 More advanced work in cast drawing; still life studies and figure pose in black and white and in color.
3. DESIGN Miss STEWARD  
 Six credits (six hours per week) Both semesters  
 Open to juniors and seniors who have completed course 1 or its equivalent.  
 The study of pure design, including arrangement of lines, tones, and colors in accordance with the principles of harmony, balance, and rhythm; and of design in representation, including the fundamental relation of design to pictorial art, composition as applied to plant form, landscape, still life, and life drawing, compositions of the masters, and the making of original compositions.
4. DESIGN Miss STEWARD  
 Six credits (six hours per week) Both semesters  
 Open to juniors and seniors who have completed course 3.  
 Advanced composition; book decoration with especial attention to lettering; designs for stained glass; and design applied to leather, pottery, metal, and embroidery
5. DRAWING AS RELATED TO EDUCATION Miss CLOPATH  
 Six credits (six hours per week) Both semesters  
 Open to juniors and seniors who have completed courses 1 and 3.  
 Exercises in all the different kinds of art work used in the schools; advanced work in black and white and in color.
6. THE TEACHING OF DRAWING Miss CLOPATH  
 One credit (two hours per week) Second semester  
 This course is conducted by lectures and collateral reading on the methods and value of drawing, as revealed through a study of the instincts and mental processes of the child.

## ECONOMICS AND POLITICAL SCIENCE

JOHN H. GRAY, Professor, Head of the Department of Economics and Political Science  
 EDWARD V. ROBINSON, Professor  
 WILLIAM A. SCHAPER, Professor  
 RAYMOND V. PHELAN, Instructor  
 CEPHAS D. ALLIN, Instructor  
 JOHN L. COULTER, Instructor

### ECONOMICS

1. ELEMENTS OF ECONOMICS MESSRS. ROBINSON, PHELAN, AND COULTER

- Three credits (three hours per week) Each semester  
 Open to sophomores, juniors and seniors.  
 Designed for those who desire a general knowledge of economics, and as an introduction to the more advanced courses offered in the department.  
 A thorough course in the elements of economic theory, with special reference to present day economic and social problems; McVey's Outline and a text-book, supplemented by lectures and problems, with a weekly quiz.
- 2a. ECONOMIC GEOGRAPHY OF THE UNITED STATES Mr. ROBINSON  
 Three credits (three hours per week) First semester  
 Open to sophomores, juniors, and seniors.  
 A study of the economic basis of modern civilization. Text-book, supplemented by lectures and reports.
- 2b. ECONOMIC GEOGRAPHY OF FOREIGN COUNTRIES Mr. ROBINSON  
 Three credits (three hours per week) Second semester  
 Open to those who have completed course 2a.  
 A study of the natural resources, chief industries, commercial products, and commercial relations of the leading foreign countries.
- 3a. MODERN INDUSTRIAL AND COMMERCIAL HISTORY OF EUROPE Mr. GRAY  
 Three credits (three hours per week) First semester  
 Open to sophomores, juniors, and seniors.  
 The industrial and commercial development of the chief European countries since the middle of the 18th century, with special attention to Great Britain.
- 3b. THE INDUSTRIAL AND COMMERCIAL HISTORY OF THE UNITED STATES Mr. GRAY  
 Three credits (three hours per week) Second semester  
 Open to those who have completed course 3a.  
 Courses 3a and 3b are conducted each with a text-book, supplemented by lectures, prescribed topical readings, and written reports.
4. ADVANCED ECONOMICS Mr. ROBINSON  
 Three credits (three hours per week) Second semester  
 Open to those who have completed course 1; required for a major in economics.  
 An advanced course in general economics, devoted largely to a study of recent theories of distribution. Assigned readings, reports, and discussions.
- 5a. MONEY AND BANKING Mr. PHELAN  
 Three credits (three hours per week) Each semester  
 Open to those who have completed course 1.  
 The history and theory of money, nature and uses of credit, functions of banks, foreign exchange. Lectures, text-book, assigned readings, and discussions.
- 5b. FINANCIAL HISTORY OF THE UNITED STATES. Mr. PHELAN  
 Three credits (three hours per week) Second semester  
 Open to those who have completed courses 1 and 5a.  
 The main lines of our financial development, including our monetary and banking history. Lectures, text-book, assigned readings and topics, and discussions.
6. PUBLIC FINANCE Mr. ROBINSON  
 Three credits (three hours per week) First semester  
 Open to those who have completed course 1.



The development of the state as an economic organism. Text-books, supplemented by lectures and assigned readings.

7. PROBLEMS OF TAXATION

MR. ROBINSON

Three credits (three hours per week)

Second semester

Open to those who have completed course 6.

Study of tax systems, tax reforms, and special forms of taxation, based on Seligman and reports of state tax commissions, with lectures and reports on special topics.

## POLITICAL SCIENCE

1. ELEMENTS OF AMERICAN GOVERNMENT

MESSRS. SCHAPER AND ALLIN

Three credits (three hours per week)

First or second semester

Open to sophomores, juniors, and seniors.

An elementary course in American government, intended as a preparation for the advanced courses in political science, for teaching in secondary schools, and for good citizenship. Text, lectures, and special topics.

2. COMPARATIVE GOVERNMENT

MR. ALLIN

Three credits (three hours per week)

First semester

Open to those who have completed course 1.

A comparative study of the organization and working of the governments of the great European powers of to-day. Text, with lectures and assigned readings.

3. THE ELEMENTS OF JURISPRUDENCE

MR. SCHAPER

Three credits (three hours per week)

First semester

A study of those human relations requiring legal regulation considered from the American point of view; intended for active citizenship and for the study of law. Text, cases, lectures, and assigned readings.

7. MUNICIPAL ADMINISTRATION

MR. SCHAPER

Three credits (three hours per week)

Second semester

Open to those who have completed course 1.

A comparative study of modern city charters and methods of administration. Text, lectures, and special topics.

8. THEORY OF THE STATE

MR. SCHAPER

Three credits (three hours per week)

Second semester

Open to those who have completed course 1 and course 2 or course 15.

A study of the theory of the state, the origin, nature, purpose, and justification of the state. Text-book, with lectures and topical readings.

9. POLITICAL PARTIES

MR. SCHAPER

Two credits (two hours per week)

First semester

Open to those who have completed courses 1 and 2.

An advanced course in political parties, their origin, development, and function. Text, lectures, and special topics.

13. TEACHERS' COURSE IN GOVERNMENT

MR. SCHAPER

One credit (one hour per week)

Second semester

Open to students of suitable preparation who intend to teach American government in the secondary schools.

Lectures and the examination of text-books, maps, and other materials useful to teachers.



15. STATE AND LOCAL ADMINISTRATION MR. SCHAPER  
 Three credits (three hours per week) Second semester  
 Open to those who have completed course 1.  
 A special course in the problems of our state and local governments. Lectures, cases, and special topics.

FOR A MAJOR: in commercial subjects, eighteen credits in economics, with an average of at least good, are required, together with twelve credits in political science and six credits selected from history and sociology; in government, eighteen credits in political science, including course 13, with an average of at least good, are required, together with twelve credits in economics and six credits selected from history and sociology.

The attention of students who expect to teach history and American government or commercial subjects is called to courses 2a, 2b, 3a, 3b, 5a, and 5b in economics and to courses 2, 3, 7, 9, 13, and 15 in political science. All of these courses are open for election, on the approval of the head of the department, as well as the other courses announced in economics and political science.

## ENGLISH

RICHARD BURTON, Professor, Head of the Department of English

FREDERIC KLAEBER, Professor

FRANCES SQUIRE POTTER, Professor

JOSEPH W. BEACH, Assistant Professor

MARY GRAY PECK, Assistant Professor

OSCAR W. FIRKINS, Assistant Professor

1. OUTLINE OF ENGLISH LITERATURE MISS PECK AND MR. BEACH  
 Three credits (three hours per week) First semester  
 Open to all.  
 Full credit only for freshmen, who must complete course 2 before credit for this will be allowed. Not credited toward a major in English.  
 An outline sketch of the main personalities of English literature, from the earliest times to the present.
2. OUTLINE OF AMERICAN LITERATURE. MR. BURTON AND MISS PECK  
 Three credits (three hours per week) Second semester  
 Open to freshmen who have completed course 1, and at half credit to sophomores, juniors, and seniors; not credited toward a major in English.  
 A study of the salient figures of our native literary development; special attention is given to contemporary writers.
3. EARLY ENGLISH MESSRS. KLAEBER AND BEACH  
 Six credits (three hours per week) Both semesters  
 Open to sophomores, juniors, and seniors. The first semester is required of all who take a major or obtain a teacher's certificate in English.  
 A study of the language and reading of representative selections of Old English prose and poetry; the relation to the modern English will be particularly emphasized.
4. INTRODUCTION TO MIDDLE ENGLISH LANGUAGE AND LITERATURE MR. KLAEBER  
 Two credits (two hours per week) First semester

• Open to sophomores, juniors, and seniors who have completed the first semester of course 3; alternates with course 5.

An outline of middle English grammar, including the interpretation of selected texts.

5. PIERS THE PLOWMAN MR. KLAEBER  
 Two credits (two hours per week) First semester  
 Open to sophomores, juniors, and seniors who have completed the first semester of course 3; alternates with course 4; not given in 1908-9.

6. CHAUCER MISS PECK, MR. BEACH AND MR. FIRKINS  
 Three credits (three hours per week) First semester  
 Open to sophomores.  
 A study of the grammar and literary forms of fourteenth century English, with selected readings from Chaucer's works; special attention is given to the Canterbury Tales.

7. SPENCER MISS PECK, MR. BEACH, AND MR. FIRKINS  
 Three credits (three hours per week) Second semester  
 Open to sophomores.

- 8a. OUTLINE OF EIGHTEENTH CENTURY LITERATURE MR. BEACH  
 Three credits (three hours per week) First semester  
 Open to juniors and seniors who have completed one year of work in English; not given in 1909-10.

- 8b. THE ENGLISH HUMORISTS MR. BEACH  
 Three credits (three hours per week) First semester  
 Open to juniors and seniors who have completed one year in English.  
 Courses 8a and 8b will be given in alternate years.

9. OUTLINE OF NINETEENTH CENTURY LITERATURE MR. BEACH  
 Three credits (three hours per week) Second semester  
 Open to sophomores and juniors who have completed one year of work in English.

12. THE ENGLISH NOVEL MRS. POTTER  
 Three credits (three hours per week) First semester  
 Open to juniors and seniors who have completed one year of work in English.

13. THE BIBLE AS LITERATURE MRS. POTTER  
 Three credits (three hours per week) Second semester  
 Open to juniors and seniors.

14. MILTON MRS. POTTER  
 Three credits (three hours per week) First semester  
 Open to juniors who have completed one year of work in English, preferably courses 6 and 7.

15. SHAKESPEARE MRS. POTTER  
 Three credits (three hours per week) Second semester  
 Open to juniors who have completed one year and a half in English, preferably courses 6, 7 and 14.

16. CONSTRUCTION AND DEVELOPMENT OF THE MODERN DRAMA Miss PECK  
Six credits (three hours per week) Both semesters  
Open to seniors who have completed two years in English, including course 15.
18. TEACHERS' COURSE IN ENGLISH Mrs. POTTER  
Two credits (two hours per week) Both semester  
Open to seniors who have completed courses 6, 7, 14, and 15; both semesters must be completed before credit is allowed for the first semester.
19. HISTORY OF LITERARY CRITICISM Mr. BURTON  
Two credits (two hours per week) Both semesters  
Open to juniors and seniors; both semesters must be completed before credit is given for the first semester.
20. ENGLISH PROSE Mr. BURTON  
Three credits (three hours per week) First semester  
Open to juniors and seniors who have completed one year of English.
21. BROWNING AND TENNYSON Mr. BURTON  
Three credits (three hours per week) Second semester  
Open to juniors and seniors who have completed one year of English.
22. HISTORY OF THE ENGLISH LANGUAGE Mr. KLAEBER  
One credit (one hour per week) Second semester  
Open to sophomores, juniors, and seniors who have completed the first semester of course 3; required of all who take their major or obtain a teacher's recommendation in English.

FOR A MAJOR, courses 3 (first semester), 6, 7, 14, 15, 18, and 22, together with six additional credits in English and course 2 in rhetoric, are required.

FOR A MINOR, eighteen credits, not counting courses 1 and 2, and including course 19 or course 22, the courses to be selected after consultation.

Students may select additional work, on the approval of the head of the department, from other courses announced in English.

## GEOLOGY AND MINERALOGY

CHRISTOPHER W. HALL, Professor, Head of the Department of Geology and Mineralogy

EDWARD M. LEHNERTS, Assistant Professor

FREDERIC W. SARDESON, Assistant Professor

1. GENERAL GEOLOGY Mr. HALL  
Three credits (three hours per week) First semester  
Open to juniors and seniors.  
This course comprises: (1) geodynamics, (2) structural geology, (3) physiographic geology, (4) an outline of historical geology. Lectures and conferences, illustrated by photographs, maps, profiles, and lantern slides.
2. ESSENTIALS OF PHYSICAL GEOGRAPHY Mr. LEHNERTS  
Three credits (three hours per week) First semester  
Open to juniors and seniors.  
A discussion of earth sculpture and description of the structural features of

continents, with special reference to the ethnic movements and commercial activities of mankind.

### 3. INDUSTRIAL GEOGRAPHY

MR. LEHNERTS

Three credits (three hours per week)

Second semester

Open to juniors and seniors who have completed course 1 or course 2.

The structural features of the North American continent outlined as an introduction; following this is a study of the types of soil and dominating climatic characters of the several agricultural regions of the continent; a discussion of the geography of industries as they have grown up within the past hundred years, and their dependence upon physiographic conditions; a study of local industries effected through excursions and reports; a brief survey of industries in other parts of the world parallels the more detailed study of North America; throughout the course cause and effect are kept in view.

### 4. ELEMENTS OF METEOROLOGY

MR. LEHNERTS

Three credits (three hours per week)

Second semester

Open to juniors and seniors who have completed course 1 or course 2.

The general principles of meteorology are treated, embracing the properties and phenomena of the atmosphere, including an explanation of the ordinary observations of pressure and temperature, together with a more extended study of the apparatus and practice of a weather bureau office. This is followed by a study of storms and climatic elements generally; the conditions of climatic changes are studied and the influence of physiographic conditions is discussed. Text-book, lectures, and reference reading.

### 5. GEOGRAPHY AND GEOLOGY OF MINNESOTA

MR. HALL

Three credits (three hours per week)

Second semester

Open to juniors and seniors who have completed course 1.

(a) The physical geography of the state in its relations to geological history and industrial development; (b) a study of the principles and facts of pre-Cambrian geology as exemplified within the state, and the extension of these into general application; (c) the present problems of the state in agriculture, drainage, water power, mining, quarrying, etc., are considered in some detail.

### 6. HISTORICAL GEOLOGY

MR. SARDESON

Three credits (three hours per week)

Second semester

Open to juniors and seniors who have completed course 1, course 7, or course 8.

A course in historical geology, including a study of the more important types of fossils in their geological relations; the history of the North American continent in particular is considered; lectures and demonstrations.

### 15. THE METHOD AND MATERIAL OF GEOGRAPHY

MR. LEHNERTS

Two credits (one hour per week)

Both semesters

Open to juniors and seniors; designed especially for teachers.

The earth as an object of study in the grades and in the high school; the guiding principles; the course of study; text-books and their use; practical laboratory work; excursions; collection and preparation of illustrative material; map drawing; chalk modeling; relief work; organization of geographical subject matter for class room instruction; and the method of recitation.

Students will not offer a major in geology and mineralogy toward graduation in this college except by special permission, but all who intend to teach any biological or physical science are advised to take at least some of the elementary courses, to be selected after consultation.



## GERMAN

JOHN G. MOORE, Professor, Head of the Department of German

CARL SCHLENKER, Professor

OSCAR BURKHARD, Assistant Professor

MATILDA J. WILKIN, Assistant Professor

Courses 1, 2 or 3, and 5 are introductory courses. Students who present German for entrance may select courses 4 and 6 or 7 during the first two college years.

8. ADVANCED CONVERSATION, GRAMMAR AND COMPOSITION

MR. SCHLENKER, MRS. WILKIN, AND MR. BURKHARD

Four credits (two hours per week)

Both semesters

Open to those who have taken or are taking course 6, course 7, or course 9; recommended that it be preceded by course 5; both semesters must be completed before credit is given for the first semester; required of those who obtain a teacher's recommendation in German.

9. GERMAN LITERATURE OF THE CLASSIC PERIOD

MR. MOORE

Six credits (three hours per week)

Both semesters

Open to those who have completed courses 1 and 2 (by special permission), or 3 and 7, or 4 and 6; both semesters must be completed before credit is given for the first semester; required of those who obtain a teacher's recommendation in German.

10. MODERN AUTHORS, GERMAN LITERATURE OF THE NINETEENTH CENTURY

MR. MOORE

Six credits (three hours per week)

Both semesters

Open to those who have completed courses 1, 2 and 9 (by special permission), or 4, 6, and 9, or 3, 7, and 9; both semesters must be completed before credit is given for the first semester; required of those who obtain a teacher's recommendation in German.

11. TEACHERS' COURSE

MR. MOORE

One credit (one hour per week)

Second semester

Open to those who have completed course 10; this course is especially designed for those who expect to become teachers of German in high schools.

FOR A MAJOR, course 2 or course 4, course 6 or course 7, and courses 8, 9, 10, and 11 are required, with an average of at least good.

FOR A MINOR, eighteen credits, not including course 1, to be selected after consultation.

Students may select additional work, on the approval of the head of the department, from other courses announced in German.

## GREEK

JOHN CORRIN HUTCHINSON, Professor, Head of the Department of Greek

CHARLES ALBERT SAVAGE, Professor

In addition to at least two of the preliminary courses, students who expect to teach Greek in the high schools should take the following:



4. ORATORY: Lysias and Demosthenes MR. SAVAGE  
 Three credits (three hours per week) First semester  
 Open to those who have completed course 2 or course 3.  
 The course consists chiefly of readings from the orations of Lysias and Demosthenes; selections from Socrates may also be read. This work is supplemented by lectures on Greek oratory, and some attention is given to the study of Greek rhetoric. At this stage of the student's development less attention is given to syntax, and more attention is paid to matters of literary interest.
5. PHILOSOPHY: Plato's *Apology*, Xenophon's *Memorabilia* MR. SAVAGE  
 Three credits (three hours per week) Second semester  
 Open to those who have completed course 2 or course 3.  
 The course consists chiefly in the reading of Plato's *Apology* together with selections from Xenophon's *Memorabilia*. The reading of texts is supplemented by lectures on Greek philosophy.
6. LYRICS MR. BROOKS  
 Three credits (three hours per week) First semester  
 Open to juniors and seniors who have completed course 4 or course 5.
7. TRAGEDY: Aeschylus and Sophocles MR. BROOKS  
 Three credits (three hours per week) Second semester  
 Open to juniors and seniors who have completed course 5.
8. PHILOSOPHY (advanced): Plato's *Republic* MR. HUTCHINSON  
 Three credits (three hours per week) First semester  
 Open to juniors and seniors who have completed course 5; alternates with course 9; not offered in 1909-10.  
 The *Republic* of Plato is read, not primarily for its philosophic interest, but as one of the best masterpieces of Greek literature. The study is, therefore, in the main, a study of literary style.
9. ORATORY (advanced): Demosthenes' *De Corona* MR. HUTCHINSON  
 Three credits (three hours per week) First semester  
 Open to juniors and seniors who have completed course 4.  
 This course is intended to secure a careful study of the development of oratorical style among the Greeks, and its culmination in this acknowledged masterpiece.
10. EPIC POETRY (advanced): The *Odyssey* MR. HUTCHINSON  
 Three credits (three hours per week) Second semester  
 Open to juniors and seniors who have completed course 7.  
 The object of this course is to secure as intimate an acquaintance as possible, at first hand, with Homer. The Homeric question is given but scanty attention; its place is in the graduate work (course 19). Literary values receive chief attention, and that these may be realized by the student, as much of the text is read as is consistent with careful work.
13. GREEK COMPOSITION MR. HUTCHINSON  
 Two credits (one hour per week) Both semesters  
 Open to juniors and seniors who have completed courses 4 and 5; both semesters must be completed before credit is given for the first semester; recommended to those who expect to teach Greek.  
 FOR A MAJOR, courses 4, 5, 7, 10, and 14 are required.  
 FOR A MINOR, at least eighteen credits.  
 Students who desire further courses in Greek will consult with the head of the department.

## HISTORY

WILLIS M. WEST, Professor, Head of the Department of History

FRANK M. ANDERSON, Professor

ALBERT B. WHITE, Professor

WILLIAM STEARNS DAVIS, Professor

WALLACE NOTESTEIN, Instructor

## INTRODUCTORY COURSES

1. EUROPEAN HISTORY FROM THE ESTABLISHMENT OF THE ROMAN EMPIRE TO THE REFORMATION, 31 B. C. TO 1500 A. D. MR. DAVIS  
 Six credits (three hours per week) Both semesters  
 Open to all; juniors and seniors receive only half credit.  
 Especially designed for freshmen who have had less than two years of history in the secondary schools; not credited toward a minor in history.

2. ENGLISH CONSTITUTIONAL HISTORY TO THE ACCESSION OF GEORGE I. MR. WHITE AND MR. NOTESTEIN  
 Six credits (three hours per week) Both semesters  
 Open to all who have had two years of history in the secondary schools, or who have completed course 1.

## GENERAL COURSES

3. THE RENAISSANCE AND REFORMATION MR. WHITE  
 Three credits (three hours per week) First semester  
 Open to those who have completed course 1 or course 2.  
 The Renaissance and the Reformation will be studied as general European movements, with emphasis upon the work of individual men and upon ideas rather than upon politics and institutions. The purpose of the course will be to show how the medieval world became the modern world.

4. EUROPE SINCE 1789 MR. ANDERSON  
 Six credits (three hours per week) Both semesters  
 Open to those who have completed course 1 or course 2.  
 The history of France occupies the most prominent place in the course, that of other countries being grouped about it as far as possible.

5. AMERICAN CONSTITUTIONAL HISTORY TO 1840 MR. WEST  
 Six credits (three hours per week) Both semesters  
 Open to those who have completed course 2.  
 Required for courses 6 to 9, inclusive, 11, 13, 14, and 19, and therefore recommended for the sophomore year to students who expect to specialize in history.

6. AMERICAN CONSTITUTIONAL HISTORY, 1841-1885 MR. ANDERSON  
 Three credits (three hours per week) First semester  
 Open to those who have completed course 2 and at least the first semester of course 5; given in 1908-9 and in alternate years thereafter.

15. HISTORICAL METHOD AND BIBLIOGRAPHY MR. WHITE  
 Two credits (two hours per week) Second semester  
 Open to those who have completed course 1 or course 2; designed only for those who intend to specialize in history.

16. **TEACHERS' COURSE** MR. WEST  
 One credit (one hour per week) Second semester  
 Open to seniors and graduates who have, including courses in progress, twenty-four credits in history; required of those who obtain a teacher's recommendation in history.  
 This course is designed to assist those who expect to teach history in the high schools. Mr. West will be aided by other members of the department.
20. **ENGLAND SINCE 1815** MR. ANDERSON  
 Three credits (three hours per week) Second semester  
 Open to those who have completed course 2; may be taken to advantage in connection with course 4; not given in 1908-9.
21. **HISTORY OF GREECE** MR. DAVIS  
 Three credits (three hours per week) First semester  
 Open to those who have completed course 1 or course 2.  
 The course is general in its nature, and will cover the political and social development of the Greek states to the time of their incorporation into the Roman Empire, with particular emphasis upon the latter part of the period. Special attention will be given to the permanent influence of Greek civilization.

#### INTENSIVE COURSES.

7. **THE MAKING OF THE CONSTITUTION** MR. WEST  
 Six credits (three hours per week) Both semesters  
 Open to juniors, seniors, and graduates who have completed course 5, but only on the approval of the instructor; both semesters must be completed before credit is given for the first semester.
8. **AMERICAN HISTORY SINCE 1789, AS SHOWN IN THE DEVELOPMENT OF CONSTITUTIONAL LAW** MR. WEST  
 Three credits (three hours per week) First semester  
 Open to seniors and graduate students who have completed courses 2, 5, 6, and 7; not given in 1909-10.
9. **STUDIES IN AMERICAN STATESMEN** MR. ANDERSON  
 Three credits (three hours per week) Second semester  
 Open to juniors, seniors, and graduates who have completed course 2, and at least the first semester of course 5.
10. **A CRITICAL STUDY OF A HISTORICAL MASTERPIECE** MR. ANDERSON  
 Three credits (three hours per week) First semester  
 Open to those who have completed course 5.
11. **THE HISTORY OF AMERICAN DIPLOMACY** MR. ANDERSON  
 Three credits (three hours per week) First semester  
 Open to seniors and graduates who have completed course 5.
12. **THE HISTORY OF EUROPEAN DIPLOMACY SINCE 1789** MR. ANDERSON  
 Three credits (three hours per week) First semester  
 Open to seniors and graduates who have completed or are taking course 4; ability to read easy French is required.
13. **COLONIAL EXPANSION AND ADMINISTRATION** MR. WEST  
 Three credits (three hours per week) Second semester

Open to seniors and graduates who have completed course 4 or course 5; given in alternate years; not given in 1909-10.

14. A CRITICAL STUDY OF AUTHORITIES FOR EARLY NEW ENGLAND HISTORY

Mr. West

Four credits (two hours per week)

Both semesters

Open to seniors and graduates who have completed eighteen credits, including course 5; both semesters must be completed before credit is given for the first semester; given in alternate years.

17. BEGINNINGS OF PARLIAMENT

Mr. White

Three credits (three hours per week)

Second semester

Open to juniors, seniors, and graduates who have completed twelve credits, including course 2. Students should have a reading knowledge of Latin. Latin 9 gives good preparation for this period. This course alternates with course 18; not given in 1909-10.

18. ORIGIN OF THE ENGLISH JUDICIAL SYSTEM

Mr. White

Three credits (three hours per week)

Second semester

Open to juniors, seniors, and graduates who have completed six credits in history, including course 2, and who obtain permission of the instructor. Students should be able to read Latin, and Latin 9 is recommended to give this preparation. This course alternates with course 17; given in 1909-10.

19. ENGLISH INSTITUTIONAL DEVELOPMENT IN THE SEVENTEENTH CENTURY

Mr. Notestein

Three credits (three hours per week)

Second semester

Open to juniors, seniors, and graduates who have completed twelve credits in history, including course 2.

22. GREEK POLITICAL INSTITUTIONS

Mr. Davis

Three credits (three hours per week)

Second semester

Open to juniors, seniors, and graduates who have completed courses 1 or 2, 21, and six additional credits.

23. ROMAN IMPERIAL ORGANIZATION

Mr. Davis

Three credits (three hours per week)

Second semester

Open to juniors, seniors, and graduates who have completed twelve credits.

For a MAJOR, twenty-four credits, including course 4 or course 5, <sup>1</sup>/<sub>2</sub> course 16, and at least six credits in intensive courses, are required. At least the elements of the other social sciences are recommended.

For a MINOR, eighteen credits.

Students who expect to teach history are advised to consult in respect to their courses with the head of the department during the freshman year.

## LATIN

JOSEPH B. PIKE, Professor, Head of the Department of Latin

JOHN S. CLARK, Professor

Students who desire a recommendation to teach Latin are expected to take courses 1, 2, 3, and 4 during the first two college years.



## 5. OVID

MR. CLARK

Two credits (one hour per week)

Both semesters

Open to those who have taken courses 1 and 2; both semesters must be completed before credit is given for the first semester.

Translations from Ovid's *Fasti* with a study of the religion and religious ceremonials of the Romans.

## 6. ADVANCED COURSE IN CAESAR

MR. PIKE

Three credits (three hours per week)

First semester

Open to those who have completed courses 1 to 4, inclusive; required for teacher's recommendation in Latin.

Selections from books five to seven of the Gallic War and from the Civil War; thorough study of the principles of indirect discourse; intermediate composition; approximately one hour for one half semester will be spent upon technical portions of the work, e. g. class drill work and discussion of the various problems connected with secondary school work in Latin.

## 7. ADVANCED COURSE IN VIRGIL

MR. PIKE

Three credits (three hours per week)

Second semester

Open to those who have completed courses 1 to 4 inclusive; required for a teacher's recommendation in Latin.

An interpretation of selections from books seven to twelve of the Aeneid; a study of the quantitative method of pronouncing Latin verse; practice in the metrical rendering of selected passages; approximately one hour for one half semester will be spent upon the strictly technical portions of the subject.

## 10. LATIN COMPOSITION

MR. PIKE

Two credits (two hours per week)

Second semester

Open to those who have completed courses 1 to 4, inclusive. Required for degree with distinction.

## 12: CORRESPONDENCE OF CICERO

MR. CLARK

Two credits (two hours per week)

First semester

Open to those who have completed courses 1 to 4, inclusive.

Selections from the letters of Cicero, with a study of the life and history of his times.

FOR A MAJOR, courses 1, 2, 3, 4, 5, 6, and 7, with an average of at least good, are required.

FOR A MINOR, courses 1, 2, 3, and 4.

Students may select additional work, on the approval of the head of the department, from other courses announced in Latin.

## MANUAL TRAINING

J. J. FLATHER, Professor and Head of the Department of Mechanical Engineering

W. H. RICHARDS, Instructor

S. C. SHIPLEY, Instructor

Each credit hour calls in all manual training courses for at least three hours of shopwork.



- |  |                 |
|--|-----------------|
| 1. INTRODUCTORY COURSE IN WOODWORK   | MR. RICHARDS    |
| Three credits  | First semester  |
| Open to juniors or seniors.  |                 |
| Planned to give the elementary principles of sloyd and familiarity with material and tools.          |                 |
| 2. ADVANCED COURSE IN WOODWORK   | MR. RICHARDS    |
| Three credits  | Second semester |
| Open to juniors and seniors.   |                 |
| 3. INTRODUCTORY COURSE IN IRONWORK   | MR. SHIPLEY     |
| Three credits  | First semester  |
| Open to juniors and seniors.   |                 |
| 4. ADVANCED COURSE IN IRONWORK   | MR. SHIPLEY     |
| Three credits  | Second semester |
| Open to juniors and seniors.   |                 |
| Students may register for credit in manual training courses only with the approval of the committee. |                 |

## MATHEMATICS

JOHN F. DOWNEY, Professor, Head of the Department of Mathematics

GEORGE N. BAUER, Professor

WILLIAM H. BUSSEY, Assistant Professor

ANTHONY L. UNDERHILL, Assistant Professor

GEORGE P. PAINE, Assistant Professor

ROYAL R. SHUMWAY, Instructor

JAMES S. MIKESH, Instructor

- |   |  |
|---|--|
| 1. HIGHER ALGEBRA, PART I   | MESSRS. BAUER, BUSSEY, UNDERHILL, PAINE,<br>AND MIKESH |
| Five credits (five hours per week)                                | First semester   |
| 2. ALGEBRA CONTINUED AND PLANE TRIGONOMETRY                       | MESSRS. BAUER, BUSSEY, UNDERHILL, PAINE, AND MIKESH    |
| Five credits (five hours per week)                                | Second semester  |
| 3. HIGHER ALGEBRA, PART II  | MESSRS. BAUER, BUSSEY, UNDERHILL,<br>AND PAINE         |
| Three credits (three hours per week)                              | First semester   |
| 4. TRIGONOMETRY   | MISSRS. BUSSEY AND PAINE                               |
| Three credits (three hours per week)                              | Second semester  |
| 5. HIGHER ALGEBRA, PARTS II AND III AND TRIGONOMETRY              | MESSRS. BUSSEY, PAINE, AND MIKESH                      |
| Ten credits (five hours per week)                                 | Both semesters   |
| 6. HIGHER ALGEBRA, PART III.                                      | MESSRS. BUSSEY AND PAINE                               |
| Three credits (three hours per week)                              | First semester   |
| Open to those who have completed course 2, course 4, or course 5. |  |

7. ANALYTICAL GEOMETRY MESSRS. BUSSEY, UNDERHILL, AND PAINE  
Three credits (three hours per week) First semester  
Open to those who have completed course 6
8. DIFFERENTIAL CALCULUS MESSRS. DOWNEY AND UNDERHILL  
Three credits (three hours per week) First semester  
Open to those who have completed course 7.
9. INTEGRAL CALCULUS MESSRS. DOWNEY AND UNDERHILL  
Three credits (three hours per week) Second semester (first semester in 1909-10).  
Open to those who have completed course 8.
13. MATHEMATICAL PEDAGOGY MR. BAUER  
One credit (one hour per week) Second semester  
Open to those who have completed course 7.  
A lecture course, in which special attention is paid to the fundamental principles of algebra and geometry.

FOR A MAJOR, eighteen credits, with an average of at least good, are required, including courses 6, 7, 8, 9, and 13, but not including courses 1 and 2.

FOR A MINOR, twelve credits, not including courses 1 and 2.

## MUSIC

CARLYLE M. SCOTT, Professor, Head of the Department of Music

LAURA FRANCIS KENDALL, Instructor

1. HARMONY MR. SCOTT  
Four credits (two hours per week) Both semesters  
Open to juniors and seniors; the fee is four dollars per semester.
2. COUNTERPOINT MR. SCOTT  
Four credits (two hours per week) Both semesters  
Open to juniors and seniors who have a thorough knowledge of harmony; the fee is four dollars per semester.
3. MUSICAL FORM AND FREE COMPOSITION MR. SCOTT  
Two credits (two hours per week) Second semester  
Open to seniors who have completed course 1 and the first semester of course 2.  
Intended for those specializing in music, and can be taken only with the consent of the instructor; the fee is four dollars per semester.
4. PIANOFORTE MR. SCOTT  
Three or six credits (one and one-half or three hours per week) Both semesters  
Open to juniors and seniors.  
Intended for those who propose to pursue the higher branches of pianoforte playing, or to fit themselves for piano teaching.
5. PIANOFORTE, Second course MR. SCOTT  
Three or six credits (one and one-half or three hours per week) Both semesters  
Open to seniors who have completed course 4. The fee is thirty-two or sixty-four dollars per semester.

6. CHORAL CULTURE MR. SCOTT  
 Two credits (one hour per week) Both semesters  
 Open to juniors and seniors  
 A single credit may be secured for chorus work, provided that students pursuing work for credit take course 1 or 2 at the same time; students may pursue chorus work without credit by paying the required fee and securing the consent of the director.
7. PUBLIC SCHOOL MUSIC MRS. KENDALL  
 Two credits (two hours per week) Each semester  
 Open to juniors and seniors.  
 This course includes methods, harmony, analysis, voice training, composition, and practice teaching. Students are expected to become members of the chapel choir and take part in its duties.
8. HISTORY OF MUSIC MR. SCOTT  
 Two credits (one hour per week.) Both semesters  
 Open to juniors and seniors; the fee is four dollars per semester.

## PHILOSOPHY AND PSYCHOLOGY

NORMAN WILDE, Professor, Head of the Department of Philosophy and Psychology

JOHN B. JOHNSTON, Associate Professor

DAVID F. SWENSON, Assistant Professor

JAMES B. MINER, Assistant Professor

ROWLAND HAYNES, Assistant Professor

1. INTRODUCTORY PSYCHOLOGY MESSRS. MINER, SWENSON, AND HAYNES  
 Three credits (three hours per week) Each semester  
 Open to sophomores, juniors, and seniors.  
 Required for all advanced work in psychology and for the teacher's certificate; it also serves as an introduction to the courses in philosophy. Students who expect to teach are advised to take this course during the second college year.
2. LOGIC MESSRS. WILDE, SWENSON AND HAYNES  
 Three credits (three hours per week) Each semester  
 Open to sophomores, juniors, and seniors.
3. EDUCATIONAL PSYCHOLOGY MESSRS. MINER AND HAYNES  
 Three credits (three hours per week) Each semester  
 Open to those who have completed course 1.  
 This course is commended to those who expect to teach; it is announced also as course 3 in education, and is accepted toward the requirements of the teacher's certificate, and counts as one of the five courses in education required for graduation in this college.
4. EXPERIMENTAL PSYCHOLOGY: The Senses. MESSRS. MINER AND HAYNES  
 Three credits (three hours per week) First semester  
 Open to juniors and seniors who have completed course 1. As the number in each laboratory section will be limited, students must arrange with their instructors as to their section before registration.

5. **EXPERIMENTAL PSYCHOLOGY—Higher Mental Processes** MR. MINER  
 Three credits (three hours per week) Second semester  
 Open to juniors and seniors who have completed courses 1 and 4.
6. **OUTLINE OF EXPERIMENTAL PSYCHOLOGY** MR. MINER  
 Three credits (three hours per week) Second semester  
 Open to juniors and seniors who have completed course 1; not given in 1909-10.

All of the above courses have direct bearing upon the problems of education. The attention of future teachers is directed also to courses in ethics, the history of philosophy, the philosophy of religion, and other courses which are announced in the bulletin of the College of Science, Literature, and the Arts.

The following course in neurology, offered by the College of Medicine and Surgery, is of value to students who are taking advanced courses in psychology, and who are preparing to specialize in the teaching of education and psychology.

26. **THE NERVOUS SYSTEM AND MENTAL LIFE** MR. JOHNSTON  
 Three credits (three hours per week) Second semester  
 Open to juniors and seniors

## PHYSICS

JOHN ZELENY, Professor, Head of the Department of Physics

ANTHONY ZELENY, Professor

HENRY A. ERIKSON, Assistant Professor

ALOIS F. KOVARIK, Instructor

1. **GENERAL PHYSICS** MR. JOHN ZELENY  
 Three credits (three hours per week) First semester  
 Open to sophomores, juniors, and seniors who have completed mathematics 4 or 2 (Trigonometry); may be taken separately or in conjunction with course 2.

Mechanics of solids and fluids, heat and sound. This is the first part of a general course in physics; the treatment is experimental rather than mathematical; the course is designed to give the students a general knowledge of the fundamental principles of the subject, and will be found especially useful to those pursuing other sciences. There will be one experimental lecture and two recitations each week.

2. **GENERAL LABORATORY PRACTICE** MR. KOVARIK  
 One credit (two hours per week) First semester  
 Open to sophomores, juniors, and seniors who have completed or are taking course 1; the laboratory fee is three dollars.  
 Physical measurements in the mechanics of solids and in heat and sound, giving the student a knowledge of experimental methods.

3. **GENERAL PHYSICS** MR. JOHN ZELENY  
 Three credits (three hours per week) Second semester  
 Open to sophomores, juniors, and seniors who have completed course 1; may be taken separately or in conjunction with course 4.

Light, electricity and magnetism. This is the second part of a general course in physics; the treatment is experimental, and the fundamental principles of the subject, including those of radioactivity, ionization and radiation, and the electrical constitution of matter are discussed and illustrated. There will be one experimental lecture and two recitations each week.



4. **GENERAL LABORATORY PRACTICE** MR. KOVARIK  
 One credit (two hours per week) Second semester  
 Open to sophomores, juniors, and seniors who have completed or are taking course 3; the laboratory fee is three dollars.  
 Physical measurements in light, electricity, and magnetism, giving the students a knowledge of experimental methods.
5. **MECHANICS OF SOLIDS AND FLUIDS** MESSRS. J. ZELENY, A. ZELENY,  
ERIKSON, AND KOVARIK  
 Four credits (three recitations, one lecture, or two hours laboratory) First semester  
 Open to sophomores, juniors, and seniors who have completed mathematics 4 or 2 (trigonometry); the laboratory fee is two dollars.  
 The course consists of a thorough drill in the elementary principles of mechanics. Numerous simple problems are taken up to illustrate the principles. Laboratory work will continue through the first part of the semester and will then be replaced by experimental lectures.
6. **HEAT, MAGNETISM, AND ELECTROSTATICS** MR. J. ZELENY,  
A. ZELENY, ERIKSON AND KOVARIK  
 Four credits (one lecture, two recitations, and two hours laboratory per week) Second semester  
 Open to those who have completed course 5; the laboratory fee is three dollars.  
 The fundamental principles of the subjects are studied, mainly from the experimental side. The laboratory work consists of the measurement of the most important quantities involved, and the lectures aim to illustrate the various phenomena which are studied.
7. **ELECTROKINETICS** MESSRS. J. ZELENY, A. ZELENY, ERIKSON AND  
KOVARIK  
 Four credits (one lecture, two recitations, and two hours laboratory per week) First semester  
 Open to those who have completed course 6; the laboratory fee is three dollars.  
 A study is made of the phenomena accompanying the passage of electricity through solids, liquids, and gases, and of the various laws which govern such discharges. Not only are the basic principles of electrical engineering taken up, but a brief study is made of ionization, the X-rays, radio-activity, electric waves, and wireless telegraphy. Measurements of the various electrical quantities are made in the laboratory.
8. **SOUND AND LIGHT** MESSRS. J. ZELENY, ERIKSON, AND KOVARIK  
 Four credits (one lecture, two recitations, and two hours laboratory per week) Second semester  
 Open to those who have completed course 5; the laboratory fee is three dollars.  
 The course consists of a study of wave motion and the various phenomena of sound and light. The lectures are profusely illustrated with experiments showing the various effects studied. The laboratory work is aimed to aid the student to a better insight of some of the relations which obtain in the subjects.
22. **TEACHERS' COURSE** MR. ZELENY  
 One credit (one hour per week) Second semester  
 Open to seniors who have completed courses 1 to 4, inclusive, or courses 5 and 6.  
 No special matter is discussed, but methods of presentation and the selection of lecture material and laboratory experiments are considered; the work is conducted by the students under the supervision of the instructor.



FOR A MAJOR, courses 5, 6, 7, 8, and 22 are required, together with six credits in chemistry.

## RHETORIC AND PUBLIC SPEAKING

JOSEPH M. THOMAS, Professor, Head of the Department of Rhetoric and Public Speaking

ADA L. COMSTOCK, Professor

FRANK M. RARIG, Assistant Professor

OSCAR W. FIRKINS, Assistant Professor

HALDOR GISLASON, Instructor

ANNA H. PHELAN, Instructor

WILFORD O. CLURE, Instructor

NELLIE A. WHITNEY, Instructor

### RHETORIC

#### 1. COMPOSITION AND RHETORIC

MESSRS. THOMAS, FIRKINS, AND CLURE, MISSES COMSTOCK, AND  
WHITNEY, AND MRS. PHELAN

Six credits (three hours per week)

Both semesters

Open to all, but juniors and seniors must obtain the consent of the head of the department, and will receive only half credit.

#### 2. ADVANCED COMPOSITION AND RHETORIC

MESSRS. THOMAS, FIRKINS, AND CLURE, MISS WHITNEY, AND  
MRS. PHELAN

Six credits (three hours per week)

Both semesters

Open to sophomores, juniors, and seniors who have completed course 1 or English 1 and 2.

#### 3. ADVANCED RHETORIC

MISS COMSTOCK

Six credits (three hours per week)

Both semesters

Open to juniors and seniors who have completed courses 1 and 2. This course should be taken by all who expect to teach English in the secondary schools.

#### 4. ARGUMENTATIVE WRITING

MR. THOMAS

Three credits (three hours per week)

First semester

Open those who have completed courses 1 and 2.

#### 5. SHORT STORY WRITING

MR. THOMAS

Three credits (three hours per week)

Both semesters

Open to those who have shown exceptional proficiency in course 2.

#### 6. SEMINAR

MR. THOMAS

Four credits (two hours per week)

Both semesters

Open to seniors and graduates who have completed courses 1 and 2 and at least one other course.

This course is intended for those who are specializing in rhetoric and composition. In 1909-10 the course will be devoted to lectures, reports, and theses on the history of rhetorical theory.

10. A GENERAL COURSE IN PUBLIC SPEAKING      MESSRS. RARIG AND GISLASON  
Six credits (three hours per week)      Both semesters  
Open to those who have completed rhetoric 1 or English 1 and 2.
11. INTERPRETATIVE READING      MR. RARIG  
Six credits (three hours per week)      Both semesters  
Open to those who have completed rhetoric 1 or English 1 and 2, and rhetoric 10.  
This course aims to develop intelligent, suggestive, and sympathetic reading. The text used is Shakespeare's plays.
12. ARGUMENTATION AND DEBATE      MR. GISLASON  
Six credits (three hours per week)      Both semesters  
Open to those who have completed rhetoric 1 or English 1 and 2, and rhetoric 10.
14. ORATORICAL COMPOSITION      MR. RARIG  
Six credits (three hours per week)      Both semesters  
Open to those who have completed rhetoric 1 or English 1 and 2, and rhetoric 10.

## ROMANCE LANGUAGES

CHARLES W. BENTON, Professor, Head of the Department of Romance Languages

CHARLES M. ANDRIST, Professor

JULIUS T. FRELIN, Assistant Professor

EMMA BERTIN, Instructor

1. BEGINNING FRENCH      MESSRS. ANDRIST AND FRELIN, AND MADAME BERTIN  
Ten credits (five hours per week)      Both semesters  
Open to all, but juniors and seniors receive only half credit; both semesters must be completed before credit is given for the first semester; not counted toward a minor in French.
2. INTERMEDIATE FRENCH      MESSRS. ANDRIST AND FRELIN, AND MADAME BERTIN  
Six credits (three hours per week)      Both semesters  
Open to sophomores, juniors, and seniors who have completed course 1; both semesters must be completed before credit is given for the first semester.
3. ADVANCED FRENCH GRAMMAR AND COMPOSITION      MESSRS. ANDRIST AND FRELIN  
Six credits (three hours per week)      Both semesters  
Open to all who enter the university with two years of French; both semesters must be completed before credit is given for the first semester.
4. BEGINNING FRENCH CONVERSATION      MESSRS. ANDRIST AND FRELIN AND MADAME BERTIN  
Four credits (two hours per week)      Both semesters  
Open only to those who have completed or are taking course 2 or course 3; both semesters must be completed before credit is given for the first semester.

5. THE CLASSICAL PERIOD OF FRENCH LITERATURE MR. BENTON  
 Six credits (three hours per week) Both semesters  
 Open to those who have completed course 2 or course 3; both semesters must be completed before credit is given for the first semester.
6. ADVANCED FRENCH CONVERSATION MR. BENTON  
 Four credits (two hours per week) Both semesters  
 Open to those who have completed course 2 or course 3; both semesters must be completed before credit is given for the first semester.
7. FRENCH LITERATURE OF THE NINETEENTH CENTURY MR. BENTON  
 Six credits (three hours per week) Both semesters  
 Open to those who have completed course 2 or course 3 and course 5; both semesters must be completed before credit is given for the first semester
8. TEACHERS' COURSE IN FRENCH MR. BENTON  
 Two credits (one hour per week) Both semesters  
 Open to those who have completed course 5; both semesters must be completed before credit is given for the first semester.

FOR A MAJOR, an average of at least good in courses 2 or 3 and 4, 5, 6, 7, and 8 is required.

FOR A MINOR, eighteen credits, including course 2 or course 3 and course 5.

## SOCIOLOGY AND ANTHROPOLOGY

SAMUEL G. SMITH, Professor, Head of the Department of Sociology and Anthropology

ALBERT E. JENKS, Professor

SAMUEL N. REEF, Assistant Professor

1. DESCRIPTIVE SOCIOLOGY MR. JENKS  
 Three credits (three hours per week) First semester  
 Open to juniors and seniors.  
 This is a preliminary course designed as the first work of students in the department. It presents concrete data concerning human association, showing groups of peoples living in the four grades of culture called savagery, barbarism, civilization, and enlightenment, and it discovers the activities and institutions natural and peculiar to the several groups studied. Text-book, lectures, assigned readings, and thesis.
2. ELEMENTS OF SOCIOLOGY MR. REEF  
 Three credits (three hours per week) Each semester  
 Open to juniors and seniors.  
 This course is designed to give general knowledge of the field of modern sociology, the attempt being to prepare students for such special sociological investigations as they may wish to make. Text-book, lectures, assigned readings, and thesis.
3. SOCIAL PATHOLOGY MR. SMITH  
 Three credits (three hours per week) First semester  
 Open to juniors and seniors.  
 This course covers the field of charities and corrections, dealing especially with problems of poverty, crime, insanity, and social degeneration. It also presents a discussion of the child problem and methods of social amelioration.

## 4. SOCIAL THEORY

MR. REEP

Three credits (three hours per week)

Second semester

Open to juniors, seniors, and graduate students.

This course includes a study of the leading American, English, French, and German writers to discover their methods of approach to the science, and the leading results they have secured.

## 5. SOCIAL GROUPS

MR. REEP

Three credits (three hours per week)

Second semester

Open to juniors, seniors, and graduate students.

An examination of the clan and the village in primitive life, a study of demography to discover the effect of environment upon social organization, and a comparison with the nature of and reasons for the modern city.

## 6. THE STUDY OF INSTITUTIONS

MR. SMITH

Three credits (three hours per week)

First semester

Open to those who have completed course 1.

The genesis of custom and the beginnings of law, with the geographical influence in the growth of states, will be studied, as well as the various forms of the family and their relation to forms of civilization.

## 7. ANTHROPOLOGY

MR. JENKS

Three credits (three hours per week)

First semester

Open to juniors and seniors.

This is an elementary course studying the essential characteristics of mankind and the general features of the several races of men. It primarily investigates the origin and development of the series of activities and various institutions which have had their beginnings in primitive society. Text-books, lectures, assigned readings, and thesis.

## 8. ETHNOLOGY

MR. JENKS

Three credits (three hours per week)

Second semester

Open to juniors and seniors who have completed course 1, course 2, or course 7, and to graduate students.

This is a study of the different races of men in America, Europe, Asia, Africa, and Oceania; the various historical classifications of men into races are presented; the cause of the origin and distribution of several races and sub-races are sought, and from historical perspective and present indications an attempt is made to judge of the future development of races; ethnological problems are also presented. Text-books, lectures, assigned readings, and thesis.

# Students.

## CANDIDATES GRANTED M. A. DEGREE, 1908—3

Edward M. Lehnerts, Minneapolis. B. S. '02, Pennsylvania. Major, Education; Minors, Botany, Geology.	Leonard H. Pryor, Fairmont. B. A. '02, Minnesota. Major, Education; Minor Psychology.
Conrad G. Selvig, Rushford. B. A. '07, Minnesota. Major, Education; Minors, Psychology, Sociology.	

## CANDIDATES GRANTED B. A. DEGREE, 1908—11

Carrie Bush, Minneapolis. Ethel Bush, Minneapolis. Maude Gertrude Bush, Minneapolis. Louise Kathleen Catur, St. Cloud. Nellie Margaret Dunivon, St. Paul.	Lucy Inez Hutchinson, Minneapolis. V. Russell Manning, Minneapolis. Willis Twiford Newton, Minneapolis. Reuben W. Oakes, Worthington. Gustavus M. Sachs, New Prague. Alice Winter, Minneapolis.
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## GRADUATE STUDENTS—18

### MAJOR IN EDUCATION

O. O. Arten, Minneapolis. A. S. Edwards, Minneapolis. Raymond H. Gray, Elk River. L. J. Farmer, Annandale. F. B. Harrington, Towner, N. D. Newton H. Hegel, Cambridge. Albert Hegstrom, Kennedy. Edgar C. Higbie, Canby. Eva Sardeson Jerome, Minneapolis.	Emil Johnson, Minneapolis. I. T. Johnsrud, St. Cloud. A. Ray Kent, Lanesboro. Martin Lien, Atwater. V. Russell Manning, Minneapolis. Knut A. Rygh, Mound City, S. D. M. Hauman Thorsen, River Falls, Wis. O. M. Washburn, Waterville. A. D. Weeks, Agricultural College, N. D.
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## SENIORS—15

Alice Austin, Minneapolis. George Bakalyar, Lakefield. Ellen I. Burk, Minneapolis. Anna C. Carlson, St. Cloud. Melva A. Collins, St. Paul. John D. Gilpin, Minneapolis. Blanche Hellickson, Mabel.	Marie Alden Hewitt, Minneapolis. Frances McOuat, Minneapolis. Jennie Murfin, Minneapolis. William W. Norton, Minneapolis. Alice R. Quigley, Bird Island. N. Robert Ringdahl, Minneapolis. Mira M. Southworth, Minneapolis. Amanda M. Whaley, St. Paul.
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## JUNIORS—13

Agnes Bryan, Rochester.  
Thomas Cahill, Minneapolis.  
Verna M. Hart, Minneapolis.  
Jensine M. Miller, Minneapolis.  
Richard Molenaar, Raymond.  
Abigail O'Leary, Wabasha.

Eva L. Pitts, Alton, Ia.  
Grace E. Richards, Minneapolis.  
Jessie S. Schneider, St. Paul.  
Charlotte Smith, Montevideo.  
Lillian Spain, Minneapolis.  
Esther Stoft, Minneapolis.

Olivia Trautman, Minneapolis.

## UNCLASSED—13

Kate Bartholf, Minneapolis.  
Alline C. Bayrell, Minneapolis.  
Annie M. Hayes, Minneapolis.  
Bridget T. Hayes, Minneapolis.  
E. E. Heeter, Manchester, Ind.  
W. C. Herrmann, Winona.

Harry W. Kavel, Minneapolis.  
Alice Kilgore, Minneapolis.  
Hermine R. Konig, Minneapolis.  
Mary O. Lothrop, Minneapolis.  
M. Edna Morrison, Minneapolis.  
Ernest Reynolds, Minneapolis.

Anna M. Schulte, Minneapolis.





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